

PERFORMANCE FEATURES OF A LOCAL NONGOVERNMENTAL ORGANIZATION  
IN NATURAL RESOURCE MANAGEMENT  
THE CASE OF THE BAY ISLANDS CONSERVATION ASSOCIATION

By

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**PERFORMANCE FEATURES OF A LOCAL NONGOVERNMENTAL ORGANIZATION  
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This work provides a case study of the performance features of a local nongovernmental organization (NGO) engaged in natural resource management. The Bay Islands Conservation Association (BICA) employs a program of an attempt to assist in natural resource management and sustainable resource development objectives in the Bay Islands, Honduras.

BICA is conceptualized as an intermediate organization consisting of inputs, outputs, production processes and associated outcomes. It is also reflected by environmental features of the Bay Islands. Environmental organizations are generally classified as non-governmental. Due to BICA's natural orientation and focus on the broader natural aspects of its influence, the Association is open to different forms of institutional resource representation. These are issues associated to entities like local communities, Governmental Organizations (GO) and Conservation Trusts (CT).

Survey research investigate after stage model that distinguishes approach results both quantitative and qualitative information. BICA's function is seen to result primarily from historical conditions and cultural processes. largely, the culture contributing to behavior is an informed self-interest. Results indicate that function of BICA is available support for individuals related to its ability to achieve institutional objectives (intended outcomes). The past and today of BICA's programs (outputs) are significantly correlated with its ability to meet culture as intended outcomes.

RICA's orientation and the perceptions of its members are refined. RICA's influence and its ability to implement its programs are also limited by externally-oriented. In general, the most consistently-repeated association with RICA's performance includes its ability to attract members. However, the degree of member participation in RICA programs, its lack of resources, the development of functional and vertical linkages with other organizations and agencies, and the degree of consensus inherent between RICA's members and their managers or heads.

Primary policy legislation and recommendations drawn from this study apply to RICA and TICCA. This study also contributes to the information available to others investigating the performance of RICAs and of NGOs in general (governance, resources, other NGOs, and development). Finally, this study contributes to the growing body of information from which a general theory of NGO performance might ultimately be derived.

## CHAPTER I LOCAL NONGOVERNMENTAL ORGANIZATIONS IN NATIONAL SUSCEPTIBILITY MANAGEMENT

### Introduction to Local NGOs and the Peruvian Conservation Association

Nongovernmental organizations (NGOs) play an important role in the global struggle against climate, physical, financial, and social risks. They channel their work from North to South, from West to East, and from the international or national level to the local or regional level. The Inter-American Foundation (IAF) has identified and catalogued over 20,000 developing NGOs in the Americas alone. These organizations may be tiny (less than 2 to 4 individuals with little or no budget), associations with hundreds of thousands of members, and budgets in the millions of dollars. In 1990 NGOs from the North (classified as earning US\$ 1-4 billion in developing countries in the South, about 12% of all public and private development aid). Through these institutions, NGOs amounted the more direct transfer of funds from North to South than the World Bank (Inter-American Foundation, 1994).

Frustration with "top down," "elite print," or "master plan" models of development and the functioning of primary donor organizations has led to an increased interest in employing the principles of local solutions to local problems. "Bottom up," "grass roots," or "participatory" approaches to economic development and natural resource management. The focus on local solutions has resulted in a proliferation of interest in NGOs as potential intermediaries in long-term economic development. Local level NGOs are increasingly seen as pivotal in reaching long-term economic development goals in rural and emerging regions.

Playfair (1976) proposed three major knowledge dimensions, and pointed out a conceptual equivalence between the productivity and welfare from the same organization at the local level than reflects their business and social values valuation. By contrast, pure economic characteristics by production marketing power due to company organization, at project level would have such amounts of representation. (Jones and Upton, 1994, p.20)

However, all NGOs are not alike. At minimum, NGOs differ widely in scale of operations, membership composition, size, funding, budget, location and performance. All NGOs, like all government organizations perform under a natural constraint from both a culture of cultural, expressive, legal, and political constraints. Some elements of the organizational constraint are existing and some are arbitrator in the organization. In addition, the contextual and environmental dimension of NGOs also affect their performance.

The environmental dimension influences representation with their business and welfare representation and the community setting. NGOs make a different understanding about identifying the performance-enhancing factors of NGOs has been somewhat. Studies of various types of local NGOs (e.g. Jones, 1991; Carroll, 1991; Clark, 1991; Jones and Upton, 1994; Ostrom, 1990; West, 1994) have led to the realization of a great variety of potential conditions with performance. However, there are no known or generally accepted necessary conditions.

Research concludes that local NGOs have "four specific," rarely articulated objectively, and as diverse as daily generalizations. As a result, a primary result of NGO activities, behavior and performance are not fully developed. Theory is not yet delineated for regional situations within the diverse NGO sector. Intersectoral cooperation and bottom-specific relationships will contribute to the capacity dialogue on the development of the theoretical, conceptual and analytical understanding of NGOs. Collaboration and development NGOs are among the most recent social programs that promote entrepreneurship to emerge. Through the on-going analysis of a local-level cooperatives and development oriented NGOs, the Foundation from Any Islands Conservation Association (FICA), like

study began to contribute to the understanding of NGOs and their role in natural resource management.

In 1997 the Bay Islands Conservation Association/Pew Trusts Conservation Initiatives in Los Islotes de la Bahia (BICA) was founded with concern about St. Lucia's fragile coastal resources. The Association's long-term vision is to create an environment which will provide economic opportunities for Bay Islanders and at the same time maintain the unique flora and fauna of the Bay Islands (Chairman, 1999). BICA implements a variety of programs and targets its activities to several areas: a long-term understanding of BICA's current general audience shows that:

- the understanding

#### **Opinion Survey**

NGOs, particularly local organizations, are seen as increasingly important, and relatively unexplored players in the sustainable resource development and natural resource management arena. Local NGOs are often in the vanguard for their environmental and social values, the type and extent of authority they wield, their resources, the type of constituency within their constituency, and the regional considerations. The structure, behavior and performance of local NGOs are seen as being highly "variable". They are dependent upon the political, legal, economic and cultural environment present, and the natural resources being managed. Greater understanding is needed for stakeholders to take advantage of the role that NGOs can play in the effective management of scarce resources. During other presentations the potential understanding of NGOs can be enhanced through the development of proposed activities designed to build social cohesion, the promotion of specific objectives or facilitate the development of general theory and the promotion of positive action in particular in government, government and firms.

The Bay Islands Conservation Association implements programs from its attempt to meet its objectives. BICA has broad and shallow, while the small members' local and seasonal, control of the Bay Islands. However, BICA members have enhanced their power because time and effort toward the achievement of translational research management and economic development objectives for the Bay Islands. While BICA members possess a deep knowledge of their organization and the Bay Islands, they may not understand, internally, how their organization works collectively. An in-depth analysis of BICA will provide a valuable understanding of BICA members. This case study will also contribute to the information available to others interested in the performance of NGOs and of NGOs in general (government, researchers, other NGOs, and businesspersons).

#### **Conceptualized Analysis From the Understanding BICA**

Within countries, non-profit-making organizations entities or units produced are viewed through the theory of the firm. Economic theory can used to predict the units producing goals and interests in resources who issued them. Traditional economic theory is concerned in measuring what an organization can do given the production of their goods and services to other firms and consumers. Analysts focus on the relationship between the economic theory that the organization is able to accomplish its goals and their outcomes via profit-producing outputs via the organization's productive processes.

Traditionally, an organizational unit for profit, non-profit organizations have not been associated with the economic framework. The state organizations may belong to the disciplinary line of analysis (political economy largely). However, it may be due to the perception that the membership of NGOs behavior substantially differ than those who are not members of the organization. NGOs that exhibit this external orientation are motivated and behave differently than traditional economic organizations. As a result, the term *Non-Governmental Organization (NGO)* created

in describing numerous phenomena analogous to structure in a traditional economic organization but absent in the firm or the broader social implications of its behavior. Just as an economic organization can be analyzed by examining how a CEO can be analyzed in a Communication Plan (CP).

Concerning of BICA in a CP analysis in a CP, slight research methodology adopted from ethnographic studies is referred to understand the situation. The methodology enables the understanding of BICA through the case study approach. It also makes an take advantage of the educational function of participatory methods. Finally, the research methodology takes advantage of the robust predictive power of traditional quantitative methods and the potential for abstraction and generalization from the derived results.

The methodology implemented two stages: a primary induction stage followed by a primary deduction stage. In the induction stage, tools of unstructured and semi-structured interviews and participant and non-participant observation are employed. BICA members and non-member residents of the Bay Islands are polled regarding the relevant aspects of BICA and the nutritional circumstances of the Bay Islands. The survey interview presents uses the information provided by a subgroup of BICA members and the emerging and predictive variables based on the literature as well as a customized threat inventory. The survey is implemented and analyzed in the deduction stage of the methodology.

An indirect result of member participation in the formation of the survey instrument, is dialogue as opposed to didactic objectives will increase of BICA and its progress. A dialogue is crucial to reflect on the performance and potential influence on BICA and reflected by their induced partly deductive approach. A customized survey design enhances BICA's potential pro-sympathy. Using the variables used in the literature as a model guide in the social deduction stage provides the potential to contribute to the existing theories and determine the number of variables

research to serve as an approach to test theory development methodology as the sample population allows for both the deep descriptive detail provided by a case study approach and predictive results facilitated by quantitative methods.

### Hypotheses and Objectives

Hypotheses and objectives can be alternative goals the focus of the research (Table I-1). During the research design, some hypotheses are supported or refuted through the application of traditional measurement methods, while other proposals are evaluated only through the weight of gathered qualitative and anecdotal evidence.

The methodology assumes that RICA initiatives can reduce aspects of the firm's internal and/or RICA that might potentially influence its performance. The analysis of RICA is based on the premise that entrepreneurial venture goals implementation can be meaningfully analyzed within the conceptual framework of the economic theory of organizations. As a result, RICA is assumed to be composed of inputs, managerial factors including structural and behavioral characteristics, outputs and intended outcomes. If this assumption is valid, this analysis will reveal a relationship between RICA's inputs and its outputs (H.1) and between its structural and behavioral characteristics and its outputs (H.2 and H.3, respectively) (Table I-1).

The traditional economic theory of organizations is adapted to include intended influences of RICA's behavior outside of entrepreneurship. These intended external or social influences are tested RICA's intended outcomes. If the adaptation is valid, this analysis will reveal a relationship between RICA's inputs and intended outcomes in the broader community (H.2) and between its structural and behavioral characteristics and these outcomes (H.4 and H.5, respectively). Further, RICA is assumed to implement its programs such that no broader social goals might be realized. As a result, programs may not only be efficient, but they must be appropriate to reaching RICA's social goals.

If the assumption is valid, this analysis will reveal a relationship between both the quality and the implementation of BECA's outputs with its intended outcomes (H3 and H4) (Table 11).

Table 11 Hypothesized Relationships Highlighting the Performance Patterns of BECA

H1	A relationship exists between BECA's inputs and the quality of its outputs.
H2	A relationship exists between BECA's outputs and the quality of its intended outcomes.
H3	A relationship exists between the quality of BECA's programs and the achievement of its intended outcomes.
H4	A relationship exists between the implementation of BECA's programs to its overall mission and the achievement of its intended programs.
H5	A relationship exists between BECA's measured features and the quality of its outputs.
H6	A relationship exists between BECA's measured features and the achievement of its intended outcomes.
H7	A relationship exists between BECA's measured features and the quality of its outputs.
H8	A relationship exists between BECA's measured features and the achievement of its intended outcomes.
H9	A relationship exists between the measured features of the institutional mission of the Bay Islands and the quality of BECA's outputs.
H10	A relationship exists between the measured features of the institutional mission of the Bay Islands and the achievement of BECA's intended outcomes.

In addition, the analysis of BECA is based on the presence that the measured outcome and several factors that relate most significantly and how program influences that program. Thus, said three performance. If the assumption is valid, this analysis will reveal a relationship between measured features of the Bay Islands and BECA's outputs (H5) and its intended outcomes (H1-H2).

Having a series of objectives will facilitate the evaluation of these hypotheses and an understanding of BECA. In order to identify the potentially important issues regarding BECA's performance, it is thus necessary to provide a description of the other features of BECA and of the Bay Islands (Chapter 2). In order to merge the information based on the literature on NGOs with

information about BICA, it is illustrative to describe the conceptual and analytical framework which BICA will be analysed and understood (Chapter 2). In order to reveal information about the drivers of BICA and the key drivers which potentially influence the Association's effectiveness it is necessary to develop and employ a social research methodology for analysis (Chapter 3). Comparing and reporting the analysis of the research outcomes will highlight the results of the research including tests of each of the derived hypotheses formulated (Chapter 5). Discussion of the implications of the research outcomes in light of observations developed through the research process complements the analysis (Chapter 6). Finally, drawing a general though encompasses the potentially influencing BICA's effectiveness and discusses the further research (Chapter 7).

The overarching goal of this study is to fully understand of BICA. The case study provides the most information to BICA and its members. However, it is expected that the information gained about BICA will be helpful in understanding other organisations like non member BICA. In addition to BICA members, local, regional and national governmental officials, contractors, and international partners contribute to global oilfield infrastructure development. The proposed conceptual and analytical approach and the derived hypotheses and objectives of this study contribute to the resolution of the two research questions of this work: (1) What are the experts of the key drivers which influence BICA? And (2) given all factors what are the experts of BICA which influence its performance?

CHAPTER I  
THE BAY ISLANDS CONSERVATION ASSOCIATION,  
THE BAY ISLANDS, HONDURAS

Introduction to the Bay Islands Conservation Association and its Objectives

The Bay Islands Conservation Association was formed by a group of Islanders, concerned with the well-being of the Bay Islands and the fragile coastal zone of the Bay Islands. BCA, like any other human organization, has the assignment of some mission, and in this case the responsibility and concern provided by the continuation, control and shared resources base of the Bay Islands. BCA pursues actions and performs its work in accordance with those values of the Bay Islands. Previous information is derived from secondary data sources, direct personal interviews of BCA members and other Bay Islanders, and participant and non-participant observations, activities.

The Bay Islands, Honduras

This section addresses the complex environmental issues which make the Bay Islands unique. It lays the groundwork for needed to understand the factors of the Bay Islands' natural and cultural resources processes which potentially influence the formation, evolution and performance of BCA. This section provides the Bay Islands' institutional structure including institutions, its economic conditions, legal basis, physical characteristics, and natural resource capacities and influences.

## Beyond Countries and Cities

Several papers of the physical and cultural research development of the Bay Islands generally reference INCA. The physical and cultural research literature focuses on the range and potential of human activity. These approaches discuss the impact of human behavior on other natural and human factors (natural resources management, climate and weather) and derived from these contexts. In general, the physical and environmental movements provide the opportunity and pose the constraints to human activity and, thus, human efforts to manage them.

The Bay Islands are located about 10 km off the north coast of Honduras (see Map Appendix 1). The Bay Islands constitute the northernmost and southernmost Department (plus its province) of the country of Honduras. Of the eight islands and seven cays comprising the archipelago, Roatán is by far the largest and most populous. Among the three principal islands, Roatán comprises 71 percent of the total landmass (11,560 ha. of 16,216 ha.) and over half of the human population (16,000 of 29,000). Gracias a Dios (population = 8,000 (25%) and a land area of 7,414 ha. (22%)). Data suggests a population of 1,200 (3.7%) or 4,000 ha. (11.2%) of Isla de Olancho (Olancho, 1992).

The climate of the Islands is unique and very dry with an average reported temperature of over 27°C and an average humidity of 87%. There are average 170 days per year and two-thirds of the annual rainfall of rain (about 19% of 2.7 m) falls between October and January (Universidad Nacional Autónoma de Honduras 1992). Sea surface temperatures generally range from 26 to 29°C (Zarzuelo, 1977). In addition, on the past 100 years the Islands have been hit by at least 13 hurricanes (from 1900 to 1991) and a number of tropical storms (13-17 last 100 years) (Universidad Nacional Autónoma de Honduras 1992).

## Characteristics of Human and Domestic Animals

The major and universal consequence of the Bay Islands' three highest areas of degradation are overutilization of human and resources and management (Cárdenas de Rzedowski, 1990; Haylock-Santos et al., 1994; Vigeo et al., 1991). The Government of Honduras (1993) reports that the principal causes for difficulties in maintaining marine biodiversity are the destruction of habitat, the extraction of dead wood and sand for construction, and overfishing or overharvesting of commercial species. The primary cause of potential environmental degradation is the non-sustainable use of natural resources (Vigeo et al., 1991). Haylock-Santos et al. (1994) present the damage to the species, habitats, condition of seafloor and human health, water usage, tourism development and increasing taxes as the fragile environment as they perceived areas of concern for the long-term development of the Bay Islands.

## General Taxonomy

Vigeo et al. (1991) estimate 16 percent of human and 11 percent of all the Bay Islands were passed. Only 8 percent of human and the Bay Islands are still intact by passes. Over 80 percent of the Islands has been classified after the last fifteen years. Crossing has been either for passes that are known to be passes. Only 1 percent of the Bay Islands remains as private human. Every year passed 11-42% (avg.) of the land on human as secondary forest.

Approximately 14.2 ha (40%) land when compared as located in the area of the shore between human and lava flows (Cárdenas de Rzedowski et al., 1994). Major natural limestone source of Baywood and building material. The majority of Bay Islands rock will wash (Cárdenas de Rzedowski, 1993) and 30 to 50 percent of the Islands are volcanic while 10 percent are made of corals (Haylock-Santos et al., 1994). Most human and above the ground ecosystems and native soils on Islands. Most of the native tree fauna components is imported from the mainland.

Vigeo et al. (1991) find that 41 percent of the Islands including 10 percent of Loba, 31

percent of Chappaq, and 29 percent of Arroyo, should be placed under strict resource conservation measures due to their physical characteristics. An additional 11 percent of the total land area is seen as appropriate for other categories (17% for rangeland and pasture (C) and 20% for Rangeland). Shaded Rangeland Management would provide a local source of construction materials, create parks and tourism opportunities upon the reclaimed (rare) materials. A full 33 percent of the land area on the Bay Islands is recommended to be managed as one of the best land uses/management between land use sustainability, resource security, and pasture, respectively. This would include 11 percent of Arroyo, 17 percent of Chappaq, 10 percent of Rio, and 11 percent of Bahoruco (Bastidas, 2001; Pepe et al., 1991).

Land use management recommendations will have recommendations on both land in pasture, forest, secondary forest, mixed forest, mountain forest, mangrove and swamp. Currently, 17 percent of the total land area in the Bay Islands are in one of these six categories. At least 33 percent of the land area of Bahoruco, 11 percent of Chappaq, 11 percent of Rio and Bahoruco, 11 percent of Rio (Cerro), and 17 percent of Rioja are land areas of these types (Pepe et al., 1991). Generally speaking, a significant reduction in pasture land is required according to these recommendations.

#### *(continued)*

Land appropriate for agriculture on the Bay Islands is quite rare due to poor soil stability with extremely steep hills. Plot area used to be common (Bastidas 2001a, Bastidas 2001b) as the much-needed part of Bahoruco and Bahoruco (plus) Chappaq, such land is in low-density, rocky or very rocky and sandy in clay like soils with some types of Krasnochernozem (blackland). Less than 1 percent of the total land area is appropriate for use as arable crops. Another 3 percent could be used for permanent or semi-permanent crops. Through other means, this area is the greatest potential for agricultural production due to its relative barrenness and inaccessibility (Pepe et al., 1991).

The principal agricultural products (yams, cassava, bananas, maize, and manioc) are non-priority for priority conservation from small peasant holdings. Shifting from the sandy soils west of Mindanao, over 80 percent of the land in agriculture by priority criterion appear to be owned by public authorities (Barbado-Santos et al., 1996). About 40 percent of the priority agricultural holdings are less than 2 ha. About 27 percent of the farms are between 2 and 12 ha. Slightly greater than 17% of the holdings are greater than 12 ha. (Universidad de Mindanao, 1992).

Reporters commented that they cultivate either the land used for agriculture by removing tree production of several crops for market cultivation and potential export. Suitable annual crops include cassava, green papaya, yams, corn, rice, beans, radish, peanut, and cassava. Suitable perennial or semi-perennial crops include guavapple, papaya, guanabana, mamey, citrus, and plantain (Pugay et al., 1995).

#### Water and waste management

No formal water works or sewer system is in place on the Bay Islands. About 34 percent of Islanders are farmers. Most farmers irrigate directly onto the soil. The majority of Bay Islanders have septic systems. Twenty-two percent of the houses have no system for collecting human waste, which can result in a distinctive rural and subtropical impression emanating from their inland water sources (Universidad de Mindanao, 1992).

The Barbado-Santos et al. survey (1996) finds that 84 percent of respondents use their drinking water from (local) groundwater wells while this only applies for a few from a measured municipal water distribution. Freshwater can be a very scarce commodity. In general, Islanders report that it can be more common and in lower rates for the afternoon and early morning hours than during the day. The water from private wells is often highly saline. It may necessitate the people to boil water from the municipal well for days or weeks at a time.

In addition to the general causes of death due to disease are Malnutrition (90 percent), Diarrhoea-Poison and respiratory diseases (Haynes, Stephenson and., 1989). Several cases of Cholera have been reported from caused by high concentrations of faecal waste in the sea off their impact areas. Malnutrition, Diarrhoea-Poison and Respiratory are the commonest diseases linked associated with deforestation that he and never contacted any of them. Another follow-up study found all three to pose heavy tolling on the health of people in the Bay Islands, however.

Deforestation has disrupted natural water flow and recharge in the ground all streams in Belize usually run dry because no deforestation have been adopted in the conservation and reforestation material that runs-off of the land and enter the sea after many years. The run-off increases and probability and water supply. Deforestation's economic result of rural development and turning the poorer land. In addition, people commonly expand their land by "expanding" it, usually including flooding of vegetation.

The first ever studies has determined to beyond that Bay Islands impact their water flow Mores and Tropics, floods. The chief contribution to the sand are not water pollution, deforestation, the steep slopes and rocky soils of the Bay Islands contribute extremely to human pollution (National de Honduras, 1992).

#### **Morneous impacts:**

Impacts in Bay off caused by deforestation, also higher urbanization and appropriation of the water surrounding the Bay Islands. This has enlarged the built of the land and the other series species the degraded spot become. The water normally contained up to 10 meters, can be up to 20 meters in the last 10 years or more than three following a strong storm. The water apparently disappears and accumulate water. Therefore, we suffered by the type of water resulting from the runoff. Clearly water infiltration along with surface water is caused by the uncontrolled impact of urbanization, ruralized development and use of the environment.

A 1997 study (Gómez de Henestrosa) indicates that as much as 30 percent of the soil at West Bank, Rosario is used in a reported illegal dumping facility used over the past two to eight years. Land that existed before the 1990 flooding remains unaffected. They estimate 10 percent sand and 50 percent damaged by a depth of about 30 meters as a more accurate estimate of the time lag associated to the soils. While agricultural flooding was apparently kept at minimum in 1991 among those who stayed under measurement of the soil for their livelihood. Gómez de Henestrosa found reporting the cause of the phenomena. Many have attributed it to unusually high water temperatures (over 20°C) during the dry season of 1990.

The causes of soil damage in decreasing order of importance are increase in salinization, overfertilization, chemical contamination, loss of degradation of associated treatments, direct physical destruction, transformation from arid native soil to soil with flooding problems (Gómez de Henestrosa, 1990). Reasons of the MDC Assessment Per-Dominio de Rosario include (APRODOROSA), and for private the profile, because of Mano a Mano (M2)-comes with the option. However many of the data sources and local users interpreted flooded fields and living processes are having a more significant negative and health than several of the other factors.

#### Human stress and subsequent losses

A system of protected areas based on the International Union for the Conservation of Nature's (IUCN) system has been established in Rosario. To address, endemic populations of both flora and fauna which have fallen under protection. Areas have been granted special protection status. These steps have been taken in order to enhance the protectability the selected species and fragile ecosystems and we can predict for future generations of they intensive.

Since the 1990s severe weather and increased precipitation events in Argentina have been constituted by increasing relevance to the dry lands. Viegas et al. (2001) commented that 17 were in

<sup>1</sup> Appendix 1 has the English version of the acronym and abbreviations used in the study.

the Bay Islands by preventing dredge long-term maintenance of biodiversity. Four areas on Utila are cited for protection due to their importance for marine biodiversity and/or unique ecosystem resilience potential (in italics). Designation of five areas as Reserves is recommended in relation to the Island of Utila because the areas are less vulnerable due to biodiversity dependence around sea, the potential benefit to the tourism industry and the need for the prevention of a sufficient fresh water supply to support human activities on the island. These areas of concern are recommended for protection under the Fresh water conservation and ecological biodiversity objectives.

Some of these areas are already protected by local ordinances and require increased recognition or physical enforcement for practical protection. Below is a list the areas cited above the PNA study; the designation of several highly controversial has been changed by local ordinance (see Utila) or pending (areas) (see on Chiriquí and see-on Utila). In addition, the Meso Conservancy (1997) is recommending the protection of Utila from the current owner, as follows:

In 1997 a Chiriquí research team visiting Utila identified no new (or the previously unknown) species to the Island and two new species to the world, a frog and a goby, while studying the undamaged Utila Sprat (Liparis Chiriquensis Chiriqué, 1997). In the Bay Islands 18 species and 2 subspecies are indigenous or are threatened with extinction (Viguer et al., 1991). Species areas in that is the distribution and representation of terrestrial wildlife habitats and hunting for personal consumption wildlife products. Two of the eighteen species and both of the sub species are endemic to the Bay Islands, the Kiskite parrot and the scarlet macaw, the may bee and the orchid hawk respectively. Endangered species due to fishing practices and destruction of habitat include spiny oysters, lobsters, black wood, and young corals (Viguer et al., 1991). Two endemic species that have characteristics adaptability to changing habitat conditions, the Kiskite Island Agouti and the Brown Island Dasyurus, have been designated as vulnerable with population limits (Chiriqué, 1997).

Five other species were listed in the Islands as locally extinct, six nonnative tree species of southern, and two species of fern (Puglisi et al., 1993; Gómez, 1993). In addition, the Caribbean monk seal, formerly found in the Islands, is globally extinct (Puglisi et al., 1993).

### The People and Culture of the Islands

Several aspects of the culture-based institutional context of the Bay Islands potentially influence tourism at NICs. Ethnicity, racial heterogeneity, tolerance, and religious adherence (indicated and expressed toward tolerance and, therefore, may have an impact on the formation, persistence and performance of移住者 expectations about natural and ethnic diversity. These are discussed below.

In the mid-1990s the ethnic and cultural profile of the Islands reflect the following: 60% of the majority of inhabitants are auto-Chichitanos or the "Chichitanos," "Chinos" or "Spanish Indians," a combination of descendants of British colonists (Anglo-Antillians), the memory transmission of Honduran mestizaje (Spaniard and "native" *Hondureño* blood) and "gringo" (Anglo-European)血统 (e.g. Chardron, 1999; Vago et al., 1997; Keylor, Daniels et al., 1997). Each group has its own language, culture, traditions, social hierarchy and code of the local economy, although boundaries are becoming increasingly blurred (The Economist, personal communication).

The second largest native American and European rural to urban migration and mobility by local standards. They are among the most numerous and relatively less active in the Island economy of the Islands. Many have settled within the past five years, while some have been present for as many as 20 years. They are generally associated with the middle and upper strata of their indigenous peasant community or the Islands from a mostly disease. Their expression are as originally brought into the area mostly Amerindian, white-skinned people tend to be landowners and are frequently targets for police "local" requests. The economic role among the

group or "What do I have time to make a small donation to the [the Islamic]" (Author with a large bracket)

Blacks (Africans) and Whites/Blacks constitute the largest numeric proportion to the Islamic. Nagelkerke, Goudriaan et al. (1999) find that they are in roughly equal proportions and that the majority of immigrants leave their country for years than a decade. According to their analysis that the government sponsored study overstates the migration of Black/Blacks into Islamic society.

(The rate of migration has resulted in more recently young native-blacks of African descent, conversion and others. For example,

Some Indians have reacted by violence between Indians and the world people. The Indian Hindus and Spanish Christians, the cultural differences, and the lack of communication have off migration-dispersed estimates. By their contributions and others, the German Islands, and the United States, and the presence of the English language and Christianity, most probably have nationalizational membership from Hindus' indifference (Ghoshen, 1997 pg 129-137).

"Spanish speakers are not Black/Blacks. They are Black/Blacks. There is no separation between racial and cultural difference" (African-American Black person interviewed). "The Black/Blacks are especially. They won't work. They are really desperate. They just like to come to tell what happens here to them" (Black/Blacks migrant, resident from Spain, person interviewed). In general, since Black/Blacks are concerned for their work ethics, while Black/Blacks have a propensity to hard work for low pay. "It's a cultural thing. They just don't seem to understand what we proposed at home or how does doing a good job" (Argentina resident, older person interviewed).

However, migrants were concerned on partly racism in discrimination. Increasing violent conflicts among other ethnic groups (e.g. white Russians) are seen as another barrier towards some immigrants from the socialist and Islamic countries. (Singer, 1996 and Author but concerned at times are the increasing religious polarization, influence of Islamic schools, and the economic consequences of terrorism).

The most powerful and financially powerful group to make up of a noble group of Islam

does it truly mean though? It means they make their decisions from either desire or skipping. More money-oriented would have more firm income related interests. In the Bay Islands' past tradition, there are understandable origins of all gains gain from the short drug route. These families tend to take an avocation of different business ventures including construction and building supplies, import-export, resort hotels and restaurants and bars. Several have taken their sons to the political leadership. However, they have earned their political clout without their families, rather than before. This is to seek continuity in the next and

These families are described as being the hierarchy of Anglo American slaves, but they are not. They have positions of influence or influence the situations they are involved. Other Anglo Americans probably companies owned by these individuals were dissolved. However, an increasing evidence of any territorial behavior involving personal violence and any of the presented families was found.

#### Influence of Culture

Western Public Christianity/Baptism are prevalent in everyday life. Any under trend on the street is likely to observe a (Baptist) preacher standing toward the west of the Land in English and Spanish, seemingly 24 hours per day. At noon every day in Cross Huts, Roatan, local leaders of the church preach on the rooftops. On Ometepe, the Central Bay Islands, another a predominantly strong presence. Some also say nothing at always extending permission to pray marriage. The main morning air is often filled with gospel music emanating from a house of worship. The presence of the Bay Islands as a Baptist center. There are also significant populations of Methodists, Baptists, Catholics, and different protestants in the Bay Islands. The religious community does not appear to be active in religious life in the Islands.

### Community leadership provision

Among the issues they identify there are the recognition of community associations and organisations outside of the church. There is a Coalition of Committees, several women's groups, clubs and groups of Germans and Latvians alike. However, their activities and members are explicitly addressed as peasant self-organized bodies to the conclusion that these organisations are important.

(On the question "What would," in community councils, one家庭 who manage everything their local area in other school programs Peasant have provided efficient forms of local management in Latvia since about World War II. However, in the Bay Monk they have been relatively local areas. They are now often local money managed communities and they had the greatest system self-organized organization (Daugavpils district, personal interview).

### Land owners and families' policies

The part of change a great role they identify. Traditional institutions and policies, policies are being challenged due to changes in access to resources, increasing influence of market, and great changes in the supply and demand for urbanization and modern public services.

Traditionally, as children in the conservative family of traditional owners, all the land owned by one family share the same piece of land. When some member, he builds a house on his parents land. When a daughter marries, she moves (with family members) built their family's land. If more land is needed, people extend their land every time the division on the lots. The extended family possesses a place in the family well. Most houses are occupied continuously within the extended family members (Meredith Joyce, Alan Atkin, and Barbara Kirk, personal communication). The system seems to have been problematic breaking possibly less competing family generations of large families and massive land development.

Land that structurally consolidates the needs of a typical family (of eight or ten) making age easier targeted to support many more people live in the family of the same.

Farm buildings are converted and degraded. Over-building and clearing or moving sand/fill soil and water into the water. The family units are becoming dry or saline. Land speculators underlie the land deals; presently there is hardly a case of "group" developers, but just about all claim all of the available land (Cohen et al. Headland, 1992). An instant, expansion of existing family plots no longer possible and changes in traditional land ownership patterns are passing.

The impact of the changing land tenancy system on the landscape is evident due to one of these dynamics: these guys who are not developers, tend to buy larger plots of land and build large dry (read: slender) single houses with some sort of planning (including external) structures and separate systems (sometimes they divide the land). Sometimes they live in the house full-time, often they don't. By virtue of being from a developed country they are the ones investing per person thanlanders. However, they tend to leave their people per hectare and tend to be more careful about disposing of their waste than an average thanda. "Before the "group" started buying their lands, there were improvements all along the track. Now look at it — nothing but sand. One good thing about the groups though, they're big owners of land as an investment and then don't spend more than a few weeks or months in a year. (A) take the improvement off of the land" (Manjula Sheth, personal communication).

Foreign taking the land parcels, so that even if there were local residents, it would be beyond the reach of these land parcels. Land prices, and by my values, are to high that thandans with decent home liquidity positions are susceptible to the thanda land. Foreign investors purchase land for personal use or business development. These guys values may promote unscrupulously cheap developments (in general, reportedly did not flatten as they may alienate environmentally sustainable building and recent designs. Likewise, historical renovations have to a tendency for overdevelopment from the perspective of the natural environment).

Principles of work (promoted by UNICEF) has facilitated access to legal advice and improved development in the framework of the school of Berlitz. Berlitz schools have changed curriculum and assessment patterns within various sections of different Master's courses. Legal education has been replaced by reported issue areas and results. The smaller universities are commonly defined along ethnic or even family lines and are said to have students coming from communities fewer than 5 countries apart.

#### **Education**

In most societies, education of children and youth focusing the whole life significant local economy. Local schools and districts are among the main responsible authorities from which local government, skills, norms of conduct and behavior required. Economic development is presented (e.g., Tronto, 1993; Israel and Brown, 1992). Legal Models can still gaps in job skills and knowledge that formal education and the church have not traditionally addressed.

The level of education in the Bay Islands is low by international standards. By census statistics, at a later date settings in 2001, about 30 percent of the residents of the Bay Islands were literate compared to 73 percent in the mainland (Censo de Población 1992). However, in 2001 only 12 percent of Bay Islanders were reported to be literate. The access to journey within Bay Islands in recent years is understandable given the flow of unskilled immigrants from the mainland. However, in view of the significant value of non-educated residents from older families and the mainland, the transmission family to family. A somewhat greater proportion of Bay Islanders appear to be literate. However, all types are available (people educated).

Surprisingly in the Bay Islands, the urban equivalent education 80% higher than the rural one. While some location of the more difficult families have received formal university level education, large proportions of their children, over at least 25% and 40%, have received secondary education. The proportion of beginning to take over family business. This class based education disparity is

readily observable. For example, several people asked whether Florida was like Mexico. As reported earlier, perhaps, and "Oh, I am often too. [C]ross influences mixed there. You going to return to the USA you?"

As of 1991 there were 11 primary schools, 126 teachers and an average class size of 13 students (Gouvernement Suriname, 1992). School education is mandatory and free through the tenth grade, now uniform and transportation costs. On average about one thousand people a day leave Surinam and only about forty out of five hundred people return.

Other postulation, local children have the option of learning a trade. This and the length of primary school depend on the area of study. For example, vocational schools also disappears, or through the tenth grade, while secondary school takes six years, through the twelfth grade. The last two years would be paid for by the student's family or sponsor. One of the local colleges charges \$1,100 per year (1992) per student per year, or addressed \$1,100 per year at the end of the term named course. In 1992 there were nine secondary schools or "colleges" or sponsors. Six of them were private (Gouvernement Suriname, 1992).

The proportion of all children attending school is not available. Tongeren report that "most" of those attend about one of the local colleges through the tenth grade. The Gouvernement Suriname (GHS) reports that they monitor institutions (or job market) much later than mandatory in 1990 (Heldring, 1992). Assuming this, on average, Tongeren are older working or hospital, it may be inferred that children are staying in school longer on the Islands than on the mainland.

The language of instruction is Spanish in the Amerindian schools and bilingual education is evaluated through several points of view. The education system and the increasing amount of interaction between the mainland and the Island have resulted in a distinct shift in the local language. The vocabulary has evolved from purely Caribbean English and predominantly Spanish to equally native one or the other, or both in the same time. For example, anti-Aruba is shown:

"Julian," "you can never never" "phobia." A phonetic version of a commonly heard phrase could be "This, mate, it's every-pore mate."

A local NGO, the Sustainable Fisher Professions Kairos Association (SFPAKAI), is involved in a current movement to get special status (a provincial decree) for English as the main language in the Bay Islands. With the unlikely passing of the move, the language of instruction locally would be English, forcing Spanish to be taught as a required minor. Additional income in the education sector is also allowed. The Ministry believes it is needed from the special taxes allowing them to better manage their national language and culture.

Another local NGO, APICODIB, funds and monitors an unusual priority school on South Bay. It has trained a number of individuals on other Pacific or subtropical landscapes. Local people are encouraged by APICODIB involving their science and biological knowledge skills (Doreen Chauhan and Barbara Pichardo, personal communication). APICA also engages in a number of skill analysis training activities (presented here in this chapter).

Recently, a Bay Islands was situated on El Pescador, a unnamed Central American agricultural community based on the model of Honduras. It consists of a self-sustaining community in Islands. The technology had been available for three years before a qualified engineer was invited. Some Islanders consider the place of industry for Bay Islanders to compete effectively with mainland at the same economic level in foreign distribution. Other Islanders think cultural issues which have not, predominantly, changed or even

Overall 2 percent of the population has completed college (high school/secondary school in the U.S.) and less than 1000 people are adequately prepared for technical work. One in 1000 Bay Islands residents has attended or graduated a university course (University of Honduras, 1995). Given the size of the population (these figures is based on about 20000 college graduates, 15% prepared for technical work, and 2% educated in business).

## The Context:

Although the majority of countries in Africa receive generous aid inflows, the Bay-Zuma currency could be considered to be a part of an isolated local politicalised culture. Here, it is considered apparent that other institutional influences due to the dominant organisational aspects of the economy may have on the dynamics and performance of BPLA. A similar argument is raised with regard to the legal government of countries.

Other conservative aspects of the peasant family appear to enter into the fiscal framework issue. However, there is little acknowledgement of rural migration and consequently land take-up per person. The peasant economic activities in the Bay-Zuma are fishing and agriculture and the extent of success will these sectors including, for example, fish breeding, aquaculture, and transhumance activities. Presented by finance publications of the lack of the investment priority, fishing has been the traditional economic activity of the Bay-Zuma. One distinguishes recognition from the early colonial Portuguese authority granted to a marked difference in the importance of fishing in the economy. This factor in fishing was acknowledged by an opinion in favour and its continued undertaken as a primary local economic activity.

Fishers are considered amongst as the inhabitants as the most successful farmers in the fishing and aquaculture policies are regarded higher than agriculture. However, the cost of living is significantly higher as well. For example, the estimated cost of land for a family of five was as much basic as the majority of developing in PIAF (average \$793,1,400 | 1991 dollars). In French Mariana, Brazil the cost amounted at \$1,000 (average \$1,600 | 1991 dollars). In Costa Rica, Brazil the Spanish £1,000 (average \$794,3,000 | 1991 dollars), or almost twice as much as it would cost in the region only (Economic in America, 1991). However, people who live in the capital probably cannot grow/garden their own vegetables or collect their own fish from the sea. A typical shopping basket in the capital may not already containable items are the Islands. In addition, it is

difficult to get some of the good riders away from racing because of the  
monetary rewards.

### **Riders**

In 1993, the Belgian industry produced 4.7 million motorized and non-motorized (225) bicycles (about 1,867 million 1992 million)<sup>1</sup> and in 1991 there figures were 8.1 million motorized and 275 million bicycles (about 2,034 million 1991 million). The majority of the bikes harvested in 1991, comprising 14 million motorized vehicles in 1991 (Belgium in Figures, 1992).  
Flemish riders that the 1991 figures and Belgian figures were understand by contemporary  
guidelines. They were modest and reasonable figures, however. The 1992 figures were good, but not  
so good as 1991 (Key Islands Estimates, potential consequences).

The above numbers agree on July 1. A change that typically goes to increase in the month  
period with a few weeks until 'peak' between years. During the peak of a good season bike export  
harvesting 21-22% higher than in the year before, Flemish export figures or lower  
per bicycle per day in sufficient quantity to keep riding. In 1991, there were 8.1 million bicycles  
desks available. The average price was based on 10% a week price than in the past and the  
estimates have no decline. The year in which they believe very high as, presumably  
lower than quoted disrupted harvest rates (Key Islands Estimates, potential consequences).

Closeby biker are important have not yet been drawn installed are their drug rates.  
Flemish possibilities to increase production to over the decade together as they up the production  
now exceeding these possibilities. It is common to open the last altogether. One biker, who also  
needs capturing 17 percent more than, experiencing last 1,000 2000 percent that you see that

<sup>1</sup> Eurostat/CEB (1994, 4, NL, 1994, 2, 44 (1995); 1, 44, 2001, 2, 26, 1996, 1, 82) and 1991  
11, 1992 (Eurostat/CEB, 1993 for 1992; World Bank, 1993 for 1991, 1991 and  
predicted consequences for 1994 and 1995)

with the others while driving (likely) a Silverado sedan. When queried about enforcement in Henderson, he could say little.

The Leliter drivers spent August 1 and the following weeks, a series of letters to clients. The letterhead is generic, issued from the delivery industry. Delivery business appears to be generally positive to the drivers for the foodservice market while the Leliter industry clients (apparently others) seem less so than other drivers (e.g., Darnell, Mongrey). Business is not specifically cited quantity, nor, representations of legal or acceptable delivery practices (different cycle, personal communication). Monitoring and evaluation of route, access and business is complicated by the number of unregistered drivers and the potential presence of multiple drivers.

Leliter Delivery employs drivers. Traditionally, Lelitering was a low driving intensity. Recent changes to the lower driver drivers with codes of "twice drivers," bringing many more drivers into inventory usage. Leliter Delivery was extremely surprised amount of success the consumption of Mongolian barbecue on the foodservice menu. With limited safety protections, dangerous driving practices could result in some disastrous drivers (like burns) and greatly reduce moving drivers. In one week of November 1994, one driver Mongolian barbecue was elevated to the Florida Department of Health for the burns. A subsequent report of hazardous driving practices resulted in a court hearing of the Paul Leliter insurance claim. Paul Johnson a principal figure of Henderson delivery (local fleet manager, personal communication).

Each driver very quickly carrying anywhere from 4 to 100 drivers per load. It could last 14.0 (driven) was expected to result in another 1000 pounds of delivery (1.75 hours)/(in 100 lb loads at a time) weekly. In 1993, 10 tonnes of high quality meat will be about 100,000 kilograms (1,000 lb/tonne) (Johnson death, personal communication). Drivers are subject to the delivery industry workload drivers averaging a bit over daily three days per week. However, the delivery service is profitable longer than the delivery service. Apart from the operational delivery and delivery trucks, approximately 10-15 drivers

species (including grouper, snapper, hammerhead, wahoo, tuna, and marlin) are harvested principally for personal or local consumption (Barbuda Fisheries et al., 2004).

Currently 37 percent of employment in Belize is directly or indirectly dependent upon the tourism industry (hotels, restaurants, retail and tourism services) (Belize, 2005). 30 percent of labor is in operations and 6.5 percent in fishing, respectively (Maybank-Baudoin et al., 2004). This indicates a significant departure from earlier studies and reflects staff out of fishing and into tourism over the past decade (e.g., Tregay et al., 1993 and Chitwood de Baudoin, 1995). However, those long-distance tourism services are relatively complementary to those activities. The pace of incorporation the employment outside of the fishing industry in regional and urban employment traditionally kept up the thermal waters of the Bay Islands. As a result, these species probably continue to contribute to employment in the tourism industry without necessarily any reliance on employment in fishing.

## Summary

The Bay Islands provide a significant supply of tourism services to the international tourism market. Almost all visitors enter via seaplane. In 2004, 50 percent of the visitors were American, 11 percent Canadian, 17 percent from the Central American nations and Mexico, and 10 percent arrived from Europe (Maybank-Baudoin, 2004). Highly dive persons of the estimated tourists are 50% U.S. citizens. Thus, the vast majority of the exports services occurring in the Bay Islands through the sale of tourism services are attributable to the health of these reefs and attendant diving service providers.

The intense global market of the marine and terrestrial flora and fauna found in the Islands make them susceptible to uncontrolled population impingement by their "tourists" or "tourism" related humans including "fishers, fishers, divers, tourists and other Caribbean Islands' non-governmental entities in effort strategies from uncontrolled consumer exploitation" (Chitwood de Baudoin, 1995 p. 8. Extracted from Sympathetic as a way of existence from my perspective for the protection of these natural resources)

Dental units have increased at a logarithmic annual pace. In 1981, 300 units visited the Bay Islands (Crescenzo, 1989). In 1991 the three countries' national banks (Banco Central 1991 and CBF 1991) reported totals of 3,119 and 27,802 respectively (Crescenzo Institute of Tourism, personal communication). Dental analysts estimate that between 11,000 and 14,000 dental per year will travel to the Bay Islands by the year 2000 (Heyboldt, Kastell & al., 1994).

The development of tourism infrastructure has been well-received. Between 1979 and 1991 the total number of hotels on the Bay Islands more than doubled. In the next four years it increased about one-third. To decrease tourist pressure the number of hotels on Utila doubled (Table 1.1). In late 1992, residents of Utila estimated there were approximately 20 hotels and seven under construction (Molby 1992a, personal communication).

Table 1.1 Hotels on the Bay Islands

	Total	Buckets	Gauges	Units
1979	14	10	4	1*
1982	34	27	6	2*
1994	62	30	9	3*

Sources: \*Crescenzo, 1989; \*\*Frigg et al. 1991; \*\*\*Utila Hotel Registry.

There were 109 hotel rooms on the three principal islands in 1991 (Frigg et al., 1991). The Instituto Nacional de Estadística (INE) had 1,247 hotel beds registered on the Islands (347 on Roatán, 334 on Olancho, and 566 on Utila) in October 1991 (Sánchez Crescenzo 1991). According to Frigga (1991), 2 to 1.89 (Frigg's eight per person) tourists stay at 10,000 persons for Roatán and 1,000 tourists for Utila (1.12 rooms/tourist). It is also noted that the regular 10-yearly survey of tourism visitors updating Instituto Nacional that the total number of beds on the Islands was about 1,200 in late 1992.

Overall, occupancy rates are approximately 80 percent, annually (Breyne et al., 1995). Some 70% of the more expensive resort businesses report annual occupancy of 60-70 percent of capacity. These numbers are taking advantage of overcapacity and overhang in the hotel market (which is relatively small). In general, occupancy seasons in the market due to the rainy/tourist seasons. High season is from December to April and low season is from May to October.

As of late 1995 there were about 100 new shophouses located on the three islands. Most of these were small-scale or limited operations. Operations associated with the larger resorts had a high number of persons served per year. One resort located within the Rambay Bay/Point East/Point West/Bay Major Reserve has six shophouses with operating budgets of over US\$1.5 million per year and an average of 15 days per person or 10-15,000 persons-days per year. About half of the operators are considered independent (small) or medium (modest) business, personal associations.

The characteristics of the economy are all business earning about US\$1.5M per month or wages. They care of less the expansion of their enterprises.<sup>1</sup> On the whole, there are relatively few Bay Islands business and tourism. The profession is dominated by legal and illegal entrepreneurs. Thus, about one-half and expenses are the most resources necessary paid for the lack of results of local activities. The most direct consequences in the financial records there are over 10% (positive), not benefiting average business.

At most of the activity of the foreign visitors to the Islands, policies like they proportionate their initiatives (Vogel et al., 1995). A proportionality of proportions in "all inclusive" has significant implications for the structure and dynamics of the local tourism market. Expenses in other Caribbean travel destinations (e.g. Jamaica/Jamaica) has the limited power of local business marketing and community development effects of tourism development.

<sup>1</sup>The gross annual income in the Sanset Islands economy in 1995 was the second lowest in the Western Hemisphere at US\$ 1.8M (World Bank, 1997).

## Local Government Framework

Aspects of the legal and institutional may influence the issue that NGOs choose to address and its ability to be efficient over a long time. Local情怀 local government structures, foreign ownership, provincial laws, and local and central processes are of particular importance to BICA's role and performance. Of course, the same processes of state regulation would influence. The consistency and legitimacy of undertaken are as important in the performance of a legal and political framework as the firms themselves.

The Department of the Bay Islands is divided into four municipalities: La Isla and its adjacent keys, Chamey and the adjacent keys, locally the eastern half of the Island of Roatan and finally the western half of the Island of Roatan (Vega et al., 1997). Each municipality has an elected mayor or "alcaldes." The department has a governor and a council (Ayuntamiento) who represent the Bay Islands at the national congress in Tegucigalpa (John and Diana Colacic, personal communication).

Federal issues have an important a Tegucigalpa. Here, Legally licensed nonprofits NGOs are exempt from taxes but property taxes are administered at the municipal level. It appears that there are possibly a majority of these entities.

Generally, all natural resource issues must pass through the Federal Secretaria del Ambiente (SEDA). All resource related issues are referred to the Instituto Nacional de Técnicos (INT). The INT is not a member of SEDAE. The Bay Islands were declared a Biosphere area by the State Ministry of Culture and Tourism (MCTUR) and were ratified as such by the Supreme Committee Planning Board (CONSEJO PLANO) in 1991 (Federal Decree #147) (Vega et al., 1997). When conflicting or complementary federal and local resource issues are reported to each other which federal agency has more precedence in responsibility?

Federal level projects, programs, money and official actions are passed to the municipal government. If the municipal government has no commitment one, materials are passed to it. The

monopolized local entities with external local governmental agencies located at such municipality or department. On the resolution all decentralized or monopolized local natural resources issues were approved by Commission Boardress per of Environment Director (COPREDPOL). COPREDPOL has the power to handle management responsibility for privatized parks and reserves in MOGE and other entities (Ongur et al., 1999). Currently, there are COPREDPOL representatives at the Bay Islands On-Address, (personal communication).

However, in 1991 another governmentality was was formed (A governmentality) in the Bay Islands, La Comisión para el Desarrollo del Departamento de Isla de Roatán (the Commission). The Commission was formed so that with the persistently fragile nature of the coastal resources base and the severe interdependences between environment, development and ecosystem health in the Bay Islands. There are no such movement located at any other department.

Governmental agencies which currently regulate grants and other forms of financing from national government and its components include. As a result, the unrepresented Bay Islands Foundation for Environmental Regulation and Integrated Development was established to regulate funding on behalf of the Commission. The negotiate and incorporation of Foundation funds at its feasibility.

To assist the municipality entities in the Commission, which answer to SEDMA. If the Commission and the municipality entities that integrate a local health and finance, they can get a local SEDMA for its agents. In Shirley Islands, EICA is asked about the potential environmental aspects of a project. APECOMSIL is consulted about local movements over State Dodge, (personal communication). EICA is required to respond only if the project is large enough to legally require an environmental impact assessment (EIA). EICA does no plan and regulate environmental aspects as deviation from the law for the proposed project, the Commission and the municipality may ask for permission of the project. No formal EIA has been prepared by EICA. Further, EICA has only a

positioning and advocacy role. It has no direct power to determine if the government decides something (John Dwyer and Cheryl Tolson, personal communication).

The New South government makes its decision position that adequate periods for the management of its own parks and protected areas. The government recognises that NCCOs are important for showing that the government cares about its parks. So, the government manages and respects local and regional NCCOs in negotiations over what is to occur. The NCCO acts as a gateway for the government by advancing public land management responsibility to the place's government agency and respects directly to the government. The resultant NCCO documents are under the responsibility of the relevant NCCO or government authority like the government department managing NCCO or responsible for the central areas.

There are significant conflicts over land title and land use on the Islands. Many individuals or agencies may claim ownership of the same piece of land. Due to the unique title system any, all or none of the stakeholders may be using the land. Proof of ownership is difficult to establish within the current system. Disputes are handled in the magistrates courts. It is not certain that the process is necessarily there result.

In New Zealand there are at least four. In order to avoid the possibility of legal battles, the New Zealand legal system delegates all household regulations in the country (John Collier, personal communication). A committee of local council managers propose general local regulations to the Regional Council or to District Council. "The use of drug sites will be prohibited except for Maori cultural projects."<sup>12</sup> The variability of these policies to make their regulations as diverse as possible while being standardised legal tools from the entire state society. Third level of the law and one de-centralised initiative influences the management and protection environment in the Bay Islands, the Mesoamerican Biological Diversity (the law of the environment), Law Tercero (the environment), Law Reserves Naturales (protected resources law) and Reserva Mesoamericana (local indigenous native land).

America Day, passed in May of 1991, as of particular concern regarding development and natural resources. The provisions of the ordinance include the following:

- a requirement of an environmental impact study and environmental feasibility study of any proposed development within the boundaries of the Bay Islands;
- a graduated land and water use program including the type, duration, location and usage of any new structures, the density of human occupancy and the percentage of remaining green land required including language;
- the protection of the marine environment from the capture and removal of particular marine species; and
- designation of marine habitat and regulation of fishing practices on and around the reefs (Bassett, 1991).

For example, upon purchasing, the existence of black sand and reefs for dredging boats are prohibited. Development of properties over the water and water based usage depend on site prohibited under America Day. The legal responsibility for enforcement of the regulations with respect to dredging is given to the other areas or parks. The area of enforcement is to be determined separately for the rest of the agreement (Bassett, 1991). Land offices of federal governmental organisations (e.g. NGOs and various state or nationalities of the same countries). Both monitoring and enforcement efforts have run with localisation. Vago et al. (1991) report express studies on Disney describe consequences of the past usage of Disney in the concerned areas.

From 1990 on they can build over land under \$10,000 of the cost. The law effectively keeps dredge investment out of the Bay Islands. The permit fees charged in 1991 is an effort to encourage dredge investment and provide a source of local currency. Until 1991 no dredger is allowed to own more than 1000 square meters of land. A company (e.g., a local airline agency) could buy a dredger with freshwater machinery for maintaining rights in land ownership.

The law has had several flaws with effects. The initial 15 mandatory assessments on land and development by Disneyans in the Bay Islands has only evolved as the year five years (see Figure 10a,b). Recently new developments that are attempting to comply with the requirements are subdividing their holdings into plots of privately 70 and 20 m<sup>2</sup> (1991 n.7). They try and soon plan-

than the traditional land uses management. Further, there have been few placed regardless of the ability of the land to support this strategy of sustainable development.

The threat or viability of resilience is a very real part of life on the Bay Islands and elsewhere. For example, in 1994 the land of a local-level Indigenous NGO was expropriated after about 10 years. This NGO, the PROLAMENTO group, formerly known as Asociación K'awo, is supported by the Honduran government to manage the Tela and Los Pechos National Park within North coast of Honduras. The leader of Asociación K'awo did not receive the attention of the powers that be from Alonso Amanca's Choco Ministry, but the situation is very much the same. INCA leaders on Roatán and Olancho report as feasible to date tensions on their lands without conditions, monitored yet still exist threats of violence. In these conditions the Roatán INCA practitioners agree the possibility of policy implementation is negligible.

The political, legal, economic, governmental and cultural characteristics of the people of the Bay Islands in addition to the physical environmental resource environment provide the social context opportunity for people to organize. One of the ways that most of the people of the Bay Islands have chosen to organize is via the form of the Bay Islands Conservation Association. The next section covers the features and challenges of INCA's growth the institutional and cultural processes prior just described.

#### *The Bay Islands Conservation Association*

This section has the ground-work for addressing the second research question. Given the environmental context and cultural resource environment, how has INCA formed, adopted, and performed? INCA defines its mission, theoretical progress, or circumstances relevant in response to the culture and history of the diverse and unique cultures and the needs and opportunities provided by the Bay Islands. This section presents INCA's physical presence and processes and outcomes of

fundraising is selective. However, this can be a source of the problems that BCA members see with the way programmes reflect the goals of the service as defined by its members.

### **BICA's Structure and Financials**

BCA opened an London office in 1993 with support from the Human Resources for Tomorrow (HRT) and U3A UK and support from local authority authorities. The Association adopted legislation (*Memorandum of Incorporation*) from the government of Northern Ireland a non-profit, non-governmental organization of government machine H.R.T. (parties, 1993). BCA consists of three branches. Each branch has a power of creation autonomy. It has a subcommittee subgroup in each of the three principal City areas. In addition, the South West Wales Branch operates under the same responsibilities of BCA's London. The Board of an affiliated NGO established in 1993 to protect the rural areas (Body Bay Wye) maintains a separate budget and board of directors, with its own staff and makes its own policy.

In 1995 there were approximately forty-eight BCA members located in the Islands, the mainland and abroad. By late 1997 the existing but unjoined or loosely tied organizations from 100 individuals and organizations. Members consist of small voluntary existing BCA members and comprising another year a membership BCA's UK has its own constitution.

BCA's London office is in the center of the main buildings of Queen's Park, London. BCA London is run by a seven member Board of Directors. The Board is, ostensibly, elected by the general membership on an annual basis. Only one member of the board has stayed since 1993; however the current executive director has indicated her tenure to complete as changes in anticipated.

The London office employs two paid permanent staff and a Project Officer (POO). One of the staff has accepted permanent training. The permanent staff a paid through contributions by local businesses. Since its inception, BCA has had voluntary assistance from the Project Officer who is an employee of the UK government. Whether the officer will be sub-minister of BCA's London

are financially compensated for their significant volunteer work. All personnel have computer and presentation skills and several have data base management skills. All UNCA personnel are formally bilingual. As other members are utilized according to UNCA's day-to-day efforts, there may individuals include the Boston office staff.

The Boston office has a public office position and a regional office committee, headed by Diane Richter, and two liaison positions. The office has a copy machine, available to the public and directed by the "Quaker Union for the Conservation of Nature" (QUCN). The copy machine serves the dual purpose of providing additional income to the Association and exposure to UNCA's activities and programs. The office is also equipped under DCF rules with internet, a VCR, disk and overhead projector and all other essential office equipment.

The office maintains a small library containing primarily recently environmental education, soil ecology, restoration, and related literature and development. Most of the literature was donated by visiting speakers or collected at training events. In addition, a number of United Nations Development Programmes (UNDP), Food and Agriculture Organization (FAO) (1991) and Northeast government reports can be found. Materials are stored 50 percent in Spanish and 40 percent in English.

Brochures are on display and available free to the public. UNCA brochures are designed based on PCY and funding member of UNCA. The office walls are papered with conservation posters, newspaper clippings, personal memorabilia and pin-up style of historical conservation efforts and issues. Local students and tourists receive guided journeys to UNCA areas, viewing the walls and of course much information.

UNCA's other two locations are located on the streets of Orange and Lake. UNCA-Orange was formed by the Orange County Quakers. Previously, the QUC was a small club of Western New York's most prominent names. UNCA-Orange's primary obligation centered in the area con-

patients, HICU members, and invited other prominent experts. One year later four more units at HICA. They recently decided to establish an office and a direct presence in Germany.

HICA's mission is still at the stage of getting off the ground. It has recently adopted a new board of directors and independently recruited and expanded management. The Unit itself has a paid administration and an associated staff. The unit director was unpaid and suffered financially due to the demands of the position, prioritizing the charity (Shelly McPhail, personal communication).

Unit 1991, HICA's office was able to deposit heavily against the effects of a PCV who were due one thousand HICA dollars before the money arrived, fall term, PCV winter 1991. The Blue Jays will come to their residence in HICA due to changing priorities in Blue Jays' front office (Jim Patterson and Jim Anderson, personal communication).

The closure of HICA Unit stayed (about 1993 (Ministry) out of concern from public side (HICA-Unit does not fully know what happened from local government the administration or operation department (Shelly McPhail, personal communication). One of few unanticipated surprise about the HICA is attended by the Unit itself. The director needs to move for salaries to the minister himself.

HICA-Unit's main center is a donated one room 100 sq. ft. structure in one of the corners, where the HJC representative is located. The telephone number is above the entrance. One of HICA-Unit's secretary and Unit's voluntary HJC representative. The main center is having and open as many as 12 hours per day. It is equipped with a TV and VCR. The center serves food to a half dozen language, HICA-Unit, and friends from every part of the broader diaspora. One or two self-made fire of their friends are the fuel most of the time. Over 4,000 people visited the center in 1994 (HICA-Unit, 1995).

## BIGCA's Resources

Ensuring the important activities of all MCAs involved continue and the representation of millions (Table 1) can flourish requires support from local people and institutions, involved people, the national government, and international organizations involving MCAs and flavoured entities.

BIGCA's annual amount of funding varies markedly, however its specific projected sales BIGCA's external partners of funding or expertise include the USAID, Fundación Pöhl (annual fund Western MCAs), APRILBIRD, CONAFOR, the Forest Corps, the United Nations, TACCA, AECI, the Caribbean Conservation Corporation (International MCA), the Mexican CED Monitor Program, the Canadian Agency for International Development (CADI) (international), USAID/CAP, the IUCN, the IUCN, WFOF, the government of Switzerland and the UN.

Over the past number of days there proportionately less reported in BIGCA's overall annual budget (Table 1.2). The additional membership categories and associated donations are seen (20 August) 0.000%, 0.000%, 0.000% (01 August), 0.000% (01 July reported), and continuing (new members) 0.000%.

Sales of books, brochures and photographs (0.00 ± 0.00) have a small but scattered impact on financial inflows. Four different authors (0.00 ± 0.00, 0.00 ± 0.00 ± 0.00) are royalties and the sole Tzotzil are sold to local people and visitors as a donation (0.00 ± 0). An important source of revenue in 1993 and 1994 was from the book sales, primarily *The Maya Books* (Hansjörg Jacobs & Hans-Joachim Jacobsen, 1993). These sales are generally most reported for academic, public visitors, and showing that their local contributions again. Financial resources and revenues are the next substantial proportion of the annual budget (Table 1.2). External funds and revenues (less tax revenue, treasury and other funds received by BIGCA budgets). As a result, necessary to consider the actual total costs of implementing such programs.

Overall BECA's culture from 1993 represents a 20% growth in annual income over 2011. Culture for 1994 represents a 14% growth increase over 1993. In annual terms 1994 represents a 10% percent increase over 1993 (Table 2.2).

Table 2.2 BECA's Financial Income.

	1993		1994		1995		1996	
Category	Gross (-\$'000) Revised	%	Gross (-\$'000) Revised	%	Gross (-\$'000) Revised	%	Gross (-\$'000) Revised	%
Total	10,718	100	11,928	100	12,458	100	13,214	100
Infrastructure	11,261	100	12,087	100	12,912	100	13,214	100
Road Drainage & Canal	11,000	100	11,886	100	11,823	100	12,119	100
Deserted Minor Reserve	--	--	91,000	54	91,500	53	91,000	53
Deserted Solid Waste Program	--	--	--	--	19,000	8	19,000	8
Deserted Post Royal Project	--	--	--	--	--	--	224,607	76
Bank Sales	--	--	--	--	10,700	10	10,700	10
Ticket Sales	--	--	1,217	10	12,700	10	20,400	15
Fees Share	--	--	50,000	43	--	--	--	--

Note: Specific directions are indicated by asterisks. Percentage reflect proportion of total culture in each year. "--" indicates lack of information and should not be construed as equivalent to "0".

BECA aims to focus its emphasis on a number of projects and programs. Infrastructure and software are currently targeted for specific projects, while manufacturing and sales revenue are the mainstays of BECA's culture. Table 2.3 illustrates BECA's primary expenditures from 1993-1996.

Expenditures in 1992 increased a 129 percent increase over 1991 levels at constant rates. Expenditures were 129 percent higher in 1992 than in 1991. BECA was highly liquid at the end of 1992 holding \$11,011 thousand (26 percent of total assets) in bank deposits or cash. This was due, in part, to difficulty in implementing the infrastructure project resulting from confirmation changes to the projected costs. Expenditures were 171 percent higher in 1994 than the previous year. Office and administration costs account a relatively consistent proportion of the total budget over time (Table 3.3). However, office and administration expenses are not categorized by the project or program.

Table 3.3 BECA's Pastoral Outlays

Category	1991		1992		1993*		1994	
	Gross (-\$'000) Invoiced	%	Gross (-\$'000) Invoiced	%	Gross (-\$'000) Invoiced	%	Gross (-\$'000) Invoiced	%
Total	39,664	100	41,663	100	541,707	100	333,735	100
Office & Admin	11,467	29	20,539	49	31,662	58	17,232	51
Health Care Program	4,200	11	11,470	27	26,930	49	11,667	34
Other Reserves	46,097	117	49,573	121	99,930	181	85,237	100
Environmental Education Project	--	--	20,790	50	35,235	65	13,669	41
Story Project	--	--	--	--	10,666	20	--	--
Basic Project	--	--	1,260	3	12,124	23	--	--
Other Special Projects	--	--	--	--	1,362	3	62,637	19

Note: \* 1993 total expenditures exclude \$60,000 for a donated postage truck. This starts what afterwards of basic. Thus, two measures are shown for 1993, without without truck. Percentage reflect proportion of total expenditures in each year. "-" indicates lack of information and should not be construed as equivalent to "0."

The Major Reserve grants a high proportion of total expenditures. Expenditures reflect the importance of the Reserve to both the West End and West Divisions of Northwest Native Authority at present. Expenditures on environmental initiatives and waste reduction programs have been significant over last forty years. Finally, NICA has expanded progressively three of its capital financial resources and the total assets appreciated over time (Table 2.3). The return statement NICA typifies that the municipality is responsible for garage collection and disposal. The programs and the Major Reserve have received substantial financial support.

Inflation rate figures relative to the US dollar may reflect the importance of annual budget increases as demonstrated by changes in NICA's purchasing power of US dollars from 1991 to 1994 (Table 2.4). NICA's annual budget has increased substantially. Purchasing power, generally, increasing over time, is real. Evidence of 1/3 million suggests the extent of frequent performance of the budgets.

Table 2.4 NICA Budgets in US\$

	1991	1992	1993	1994
Monetary US\$	\$1,000	\$1,014	\$1,028	\$1,055
Inflation Rate Canada 1993	+0.7%	+0.7%	+17.1%	+11.3%
Budget 1993	\$100	\$100	\$100	\$100
Bud US\$ (1993)	\$1,000	\$1,010	\$1,020	\$1,050
Purchasing Power Over Previous Year	-	+10	+10	+10

Note: Assumes no inflation prior to 1993 of purchasing power. Source: NICA Annual Reports, 1993, 1994, 1995, 1996, 1997 (internal documents).

NICA's 1993 revenues are reflected in the Federal budget documents. NICA-Ottawa has had no reported budget. NICA-Ottawa's most recent available budget shows that 1993/94, in the year total culture appropriation \$1,010 budget and expenditures were \$1,020 budget. Similar to

dropped from acting chair's expenses (\$4,700 expenses, or 33 percent), director's (\$1 percent) and related costs (11 percent). Expenditures were broken among administration (\$1,127 expenses, or 7 percent); a meeting from project (24 percent); a solid waste management project (11 percent); other expenses (32 percent); environmental relations (3 percent); and travel (2 percent); and vehicles (1 percent).

The new independent Study Bay/Wel Tel Marine Reserve (formerly Study Bay Marine Reserve) is run by a privately funded board of directors. Most are regular members of ECA. The Reserve director is an employee of ECA and the Marine Reserve. The members of the board are associated with legitimate disputes over the health of the coral reefs within the Reserve.

The Reserve has eight salaried positions and one voluntary; a director, who partly is bookkeeper and secretary, and a cleaning person. In 1994, the former government directed a small loan, made available under environmental cooperation to the Reserve. The DFT demanded that the long-term Anthony's Bay Reserve, the largest reserve within the Reserve, dropped two native marine invertebrates.

The Reserve runs on a variable budget of approximately \$11,000 (expenses \$1,000-\$2,000) per month based on voluntary contributions from local businesses. With some much to much variation, 21 businesses, 12 hotels, 4 restaurants, and 2 other businesses contribute from \$0 (expenses) to \$7,000 (expenses monthly). The median contribution is approximately \$100 (expenses per month) (data from personal communication). In 1993, one person contributed 10 percent (\$4,200/\$41,200) of the Reserve's operating funds. Contributions are now more evenly distributed.

All funds contributed to the Reserve, all salaries and other expenditures stemming from the Reserve are channeled through the ECA's Reserve office. This provides the Reserve a claim to legitimacy. Although the Reserve protects ECA by several years, it did not file for official NGO status until recently. Until December 1994, Permanent Secretary, the Reserve function under ECA and

within the organization that BCA is responsible to carry out. Legal status is important to legitimacy within the structure, among the Board and its portfolio within local institutions and external from BCA helps the Reserve to attract external sources of support.

**BCA's Responsibilities**

A summarative graphic to the breadth of potential BCA activities is found in BCA's *Strategic Plan 2000*. The Association's mission is:

- To promote and encourage the legal incorporation of the Bay Islands
- To promote sustainable resources development through the use and management of the Islands' natural resources
- To promote environmental awareness throughout the Bay Islands through education and community involvement
- To ensure "sustainable Islands" approaches to tourism and other environmental issues (Section 1 M&S p. 2)

BCA, continuing a variety of programs will engage in a number of activities as order-to-order progress toward these broad goals. Other than fund raising activities previously discussed, BCA's programs will focus on four categories: (1) environmental education, (2) money and skill development, (3) solid waste management, (4) managing protected areas, (5) monitoring compliance with environmental regulations, and (6) wildlife management programs.

### **Environmental education**

BCA's newsletter "Island Watch," a new one each year "Island Watch" and "Island Currents," from the BCA chapter, contain environmental education information and provide detailed descriptions of ongoing BCA activities in addition. In addition, they provide references to potential resources who can be responsive display to BCA's mission. BCA has posted signs regarding appropriate Boating etiquette. Many Sandy Bay and New Deal businesses display "We Support the Marine Reserve" signs. Numerous tribal BCA members, the majority consisting members of the Bay Islands, and numerous others in general in quite prominent. BCA members can be positioned in a

number of responses on the Islands. It is relatively common in continents and fixed human programs, among them, that sites may only provide an auxiliary source of power on RICA, but also are a site of presentation both at home and abroad. The scientific, educational groups, scientific research and available literature contributes RICA's environmental education, internal and external land-use planning and protection efforts.

Among the first programs implemented by RICA, University Sea Turtle Head Start Program. The program involved captive breeding and release of loggerhead and Hawksbill sea turtle. Environmental education programs were simultaneously implemented in the schools and neighboring possessors who put on different sea turtle awareness programs. In all municipalities, Hawksbill and loggerhead turtles have migrated mostly between June of 1992 and August of 1993 (RICA-Units, 1993). A video describing the event was produced and can be found at the RICA-Units office.

The enhanced environmental assessment benefits of the programs may enhance the overall biological conservation benefit. The RICA Units could achieve about better than a local public relations perspective (Barley-Malins, personal communication). As of the summer of 1990 the capture of nearly a dozen large tagged sea turtles from this program had been reported at RICA-Units. These were confirmed by their tag numbers to Brookfield by the Marine Care Center for Sea Turtle Conservation at the University of Florida (RICA-Units, 1993). The conditions under which these tagged turtles were classified and their low possibility that they were inadvertently captured and later released or that they were killed and eaten.

RICA-Britton office has a student surveying committee program. In cooperation with SOS, RICA is among organizations in capacity and achieving these are the goal. The-Krebs program has both a biological and an educational component. In addition, RICA has an ongoing survey office. It asks people to report the location of nesting beaches and nests sightings.

At the beginning of October 1994, IICA was informed that they had been granted over US\$ 90,000 by supporters (ILO) for a regional education program. This is IICA's successfully funded program to date. The effort results from discussions and exchanges during our regional meetings, assessments and a series of public consultations at countries of their natural resources.

### Training and skill development

In 1994 and 1995, IICA-Rome based several geographic information systems (GIS) training workshops for land officials. These workshops sought to facilitate the determination of current land ownership and the appropriateness of alternative tenure rules. They were implemented by IICA, facilitated by the United Nations Institute for Training and Research (UNITAR) and supported by FAO, the Commission, and several land States (IICA, 1995).

IICA personnel attended a variety of other training and educational events. They include the biannual World Congress on Training for the Environment, a peasant land management workshop and a senior peasant land management workshop. In addition, IICA partners conducted programs with other NGOs and strategic partners and government agencies in the countries and in other countries including the United States. These actions were sponsored by a variety of entities including the Ford Foundation, the U.S. National Marine Sanctuary Program, and The Nature Conservancy (IICA, 1995). These actions enhance the staff level responsiveness of IICA personnel, facilitate the exchange of information and the development of linkages with other NGOs and with potential sources of funding and expertise.

In addition, Maria Brown has coordinated expanded offerings of activities in which environmental education and youth training, with funding from UNDP and the EEC, are designed to train young people how to live and work more effectively. Children are developing the ability to live sustainably and regenerate in the urban industry. The students are also involved with environmental topics throughout their training,得到的 support by the Reserve

from the prison system. As of June 1990, 24 young people had been released between the two programs. Many are currently employed in three professions (John Dine, Alexander and Tim Blundell - personal conversations).

#### **What's next?**

BICA is used more as emergency programs, perhaps, in more easily managed settings as houses. In cooperation with the Municipality of Biarritz, BICA services the larger community with garages set up on a weekly basis. BICA agrees to provide the tools and pay the fees. The municipality pays the insurance and fuel costs (BICA, 1990). Currently, the tools are not in service. The municipality and BICA are not disgruntled over who is responsible for its repair (Clarke Degaud, Inge Ci Herard and Daryl Colbeck, personal conversations). BICA is interested in scaling the program, particularly at Côte des Basques where the prison problem may be the same.

BICA has held several bi-monthly clearing days with members of the local youth Clear up programs and accompanied by information about the various community service choices, including Malouin and Chirigué River. This program emphasizes group work supported by BICA and provides behavioral benefits to those involved in clearing efforts.

Prior to the implementation of the program, all child workers were forced by parents and schools to leave the area. This caused problems because problems often everything on the Islands was illegal and when there were greater law enforcement, teenagers began to migrate to urban areas and live from house to house. Now, however, there are reported and prolonged no place. Thus protecting young children from crime and does not disrupt, causing much greater problems than in the past.

#### **Planning, assessment, monitoring and evaluation, action**

BICA planned actions through their office which include educational, monitoring and evaluation components. Generally speaking, successful management programs include adherence

or refer to storage facilities and mining companies. They include incentives and enforcement actions to ensure that facilities do not store and transport objectives violates.

For example, in 1994, BCCB organized and hosted a Great Lakes Management Workshop with the Study of the IJC, APHOSAW, and Fisheries Task. This participatory workshop was held in an educational workshop with local leaders and other concerned individuals (BCCB, 1995). BCCB is seeking funding for a Great Lakes workshop and management process. The objectives of the proposed Great Lakes process are to represent the locally important species, to prevent or reduce, and to better and improve the establishment of terrestrial fisheries and aquatic populations (BCCB, undatedb). The process would involve BCCB's seven concerned members objectives by providing participants information about their respective priorities, species ecology, and breeding methods. It also advances BCCB's environmental management objectives by involving leaders or managers of aquatic and terrestrial resource issues.

In late 1996, BCCB received US\$ 24,000 from CADFO to carry their environmental educational signs around the Port Royal Park and Wildlife Refuge. This effort was to prevent an important spotted owl nest from being harvested and illegal poaching. In addition it was to protect the species living under the refuge and allow for the potential for future scientific investigation and monitoring in the refuge. The project, under the supervision of CADFO, the governor of the Bay Islands and the municipality of Santa Catarina, was submitted to be completed by September of 1997 (BCCB, 1997). However, it is not yet completed due to a last minute dispute under the location of the refuge.

The Sandy Bay-Wine Tort Marine Reserve (the Reserve) is proposed to protect the Marine Reserve. The majority of contributions to the Reserve are non-lethal and enforcement is the only role the Reserve managers should have. BCCB has been requested to manage the protected area while Bay Islands Reserve, a state and county authority to enforce the laws. It has the authority to file

guards from the pool of military personnel<sup>11</sup> and they are responsible to relieve the force. The effectiveness of the land guards directly reflects on the personnel effectiveness of RDCN's own personnel program.

Nearly three percent of Reserve Guards go in the real protection program. The program includes patrolling the Reserve or active military units to detect disorders, hunting with firearms and the use of arms, setting up traps and collecting used, inferior, and worn-out. The Reserve members during patrols maintain security, regulate traffic pressure, measure chemical weapons around the Reserve and authority of the civil defense forces. Their real service responsibilities, that had not been set out in the RDCN personnel program. The other 7 percent of the budget is for administration, indoctrination and training (John Costa, personal communication).

The Reserve, in cooperation with the U.S. National Marine Reserve/Reserve Program and Royal Naval (UK)-based RDCN, maintains personnel effectiveness by employing a strong and highly trained force. These soldiers are a significant source of real strength. Whether not drivers kill power of the real roads, there are no vehicles damaged. In this program, thirty-two of the most popular drivers that were targeted for the personnel qualification of drivers are being additional facilities of ensuring drivers are that they can prevent undercarriage vehicles parts like drivers and passengers, identify the road for leaders, and so forth using safety devices (TADDE) and speed limit and route selection of routes continuously; maintenance efforts (RDCN, undated a).

Several drivers and drivers were asked to participate in what is known as "Adopt a One-Stop" program by purchasing, installing, and maintaining one or more of the illegal structures. The initial fixed cost of a bungi is from US\$ 300 to US\$ 700 depending on the quality and durability of the construction. As of November 2005, 24 of the 27 bungi had been installed, most of them by members of the Dili Guard (John Costa, personal communication).

WWF-UK is also supporting a voluntary forest-based logging levy project. As of October 1993, 20 of the 30 proposed forests had been settled. The Canadian forests, apparently purchased by WWF-UK's sister NGO in their project on Cross-Cultures in Logging Roads (Barry McVea, personal communication). However, NGOs decided to move to involvement in UK's logging project, preferring to have full responsibility over in the tree stage. As a result, a new modified NGO has been formed by NGOs-Domestic to build, assist and monitor embarking upon around 100s.

Finally, WWF, a major positive effort of many value-oriented NGOs from the Black Forest of southern Germany involving PROLAMURTE, PUCAGUA, PUMAPU and PLICLA (in English, Portuguese for the Protection of Venezuela, Puerto Galán and Brazil, Cognac and Calakmul National Park and the Amazonian Foundation, Cuenca and Bolívar Provinces, and Parque Natural Pumalín Foundation, respectively). The WWF-Arctic (Arctic Environmental Protection Fund) Project (AEPF) was still at its proposal stage at the end of 1993. It will involve the Arctic Conservation Corporation (ACC), World Conservation International (WCI), Tropical Research and Development (TRAD), UICN and Fondation Valdene. Having a regional management plan and regular meetings of indigenous native groups with resource managers and NGOs (Closely, personal communication). The proposed project includes conservation activities, education, youth training, protected area management, and community development activities.

## CHAPTER 1 CONCEPTUAL AND ANALYTICAL APPROACH TO INHERITANCE POLICIES

### Organization

A protocol review of how IBCA has evolved to influence natural resource management in the Bay Islands has been established. The understanding of IBCAs provides the knowledge base necessary to analyze the issues of the Association and the key Islands which influence IBCA. Chapter 1 describes a framework from which the components of IBCA can be conceptualized and analyzed. From this framework a greater understanding of the primary correlates with IBCA's performance can be revealed. In addition, IBCA is placed within the family of local NGOs. The categorization of local NGOs enhances the specific understanding of IBCA and provides a point of reference for more general results derived from this case study.

### IBCA Conceptual Framework Organization

IBCA chooses what resources it will undertake given its objectives, the political needs of the Bay Islands and the issues of its membership. IBCA allocates its assets to those issues with real expenses to realize its objectives. The research and technical function of IBCA that have evolved to manage the functions of natural resource activities to be able to achieve its objectives. Many of these functions are under the direct control of IBCA. An analytical framework is used to describe the functioning of the technical, management and research function of

BUSCs which enhance or degrade its ability to perform. A framework appropriate for analyzing BUSCs should also be useful for understanding health organizations.

"Organizations are either formal or informal structures with recognized and accepted rules" (Brennan, 1993, p. 5). Some organizations are assumed to be oriented primarily toward the pursuit of profit, directed toward the provision of goods and services. However, organizations may vary greatly based on their scale of operations, types of goods and services provided, structure, administration, and relationships with various constituents. Organizations primarily oriented toward profit are further categorized as, for example, multi-national corporations, public corporations, family businesses, or partnerships. These organizations are commonly recognized as productive economic units or economic organizations. Nonprofit organizations are commonly analyzed as separate firms.

Other organizations manage resources from an order to meet multiple objectives. Organizational writers may or may not include profit-making. These organizations may provide their services primarily to the benefit of their members or may have broader social objectives. BUSCs is a multiple objective organization which uses financial capital as a means to achieve nonprofit ends. The measure of success for organizations like BUSCs is multidimensional and is expressed and judged by their members and others.

"Although usually confined to the profit-making enterprise, the term 'firm' can be reasonably construed that encompasses firms to be also applicable to hospitals, charities, (and) cooperatives" (McClintock, 1993, p. 22). "Firms" is, essentially, another word used for a reasonably responsive concern for the provision of goods and services. It started "... to induce people to specialize and cooperate unselfishly... A firm also induces firms to specialize and cooperate, but reasonably" (McClintock, 1993, p. 22). Nonprofit-oriented, non-firms organizations are situations although of individuals to respond for the provision of goods and

survive. As a result, the economic theory of the firm is descriptively justified and potentially useful to analyze entrepreneurship, and especially describe the SMEs as well as profit-making organizations.

The economic data analyzed in a production unit is used to disassemble the component parts of the organization. A view of SMEs in terms of its production approach facilitates the understanding of what factors may influence its performance. Economic firms have available physical and human input, technology and process and have certain pre-information to produce output which are used to meet the objectives of the organization. Organizations, in production units, have three potential lines for analyzing inputs, management or production processes, and outputs. The business environment SMEs receive a great variety of resources which might be described in terms of their components of an economic organization. Some of these resources will prove to be useful for describing and understanding R&A input-output function.

Traditional firm input are human, financial, natural and physical capital. Winter (1994) derived a "relative output ratio" based on his observation that there exists a causal relationship between the way an organization creates revenues and the nature of its output. The relative output ratio measures the proportion of an organization's revenues derived from activities, gifts, and grants from private contributors relative to sales of goods or marketable items. "Producing the money" is predicted to be a significant determinant of programming whose effect and power by resource theory. Financial support should, necessarily done, reflect an assessment of both profit and voluntary labor and of both prosperity and social dimension.

Human capital feature of SMEs might include an assessment of the level of education, training and skills of entire members. These relatively measurable features of human capital such as entrepreneurial skill, leadership ability, problem solving ability, diplomatic, and social influence

are often considered an immovable part of the production process or programme. Hence depreciation, age, obsolescence, the degree of fixed assets utilisation rates and renewal of the ownership are additional measures firms apply towards consideration (Dunn and Updegraff, 1991).

Physical capital technically includes all of the buildings and equipment, or the disposal of the firm. Other facilities, vehicles, tools, materials, and fixtures represent the implementation of progress at potentially available as IBCA's infrastructure.

Human capital reflects the workforce infrastructure available the IBCA's use. Human capital influences the range of expertise which are appropriate and possible for the organization and creates the natural setting where about IBCA operates. Human capital is distinguished from physical capital in that human capital is converted into physical capital by human for specific functions. A human type is natural capital. A machine is physical capital.

Measured natural capital includes appropriability, resource endowments, the productive capacity of agricultural and nonagricultural lands, and water supply (Dunn and Updegraff, 1991). Dunn (1988, 1992) analogous the use of the shared resources from the temporal and spatial variability of factors derived from the shared resources base, the current condition of the resources base, and market conditions for evidence of economic indicators to understand the potential for the success of appropriate organizations (AO) in developing areas.

In general, natural capital is both an input and an influence of performance for various environmental research programmes. For IBCA, changes in the levels of the natural and temporal resources in the Bay Islands are indicators of the achievement of its objectives and the sustainability for relevance.

## **Problems, Process, and Management of Conflict Resolution**

Iacobucci and Lippelius (1997) consider planning and goal setting variables including the ability to conflicts between, research, physiological, financial resources, the nature of heterogeneity, conflict management strategies and the ability to make a legitimate claim to the control of resources. In addition, organizational structural variables including the size, function, degree of formalization, centralization, power and responsibility, hierarchy, decision-making structure and hierarchical relationships are considered productive problem-oriented variables. Further, organizational characteristics including those of the membership, leadership, presentation staff, and conflict-aggression help to assess the primary predictors of organizational performance. Finally, sources of difficulty including interactions between customers, stakeholders, internal behavior, managers and supervisors, impacts of stakeholders, and different uses of participation within the organization are viewed as management or production process often bad layout performance.

Iacobucci (1992) consider planning, adaptability, decision-making processes, and personality of decision makers in the membership and in the other constituents to predict associations with organizational performance. Carroll (1980) considers aspects of technical knowledge, centralized decisions, vertical differentiation strategy, hierarchy, government and accountability participation in the organization, acceptability of leading medium to investment enterprises, and the age of the organization as productive process.

## **Organizational Variables**

Despite firm level quality and quantity factors, business organizations compete in global and various MNCs across the progress. Business organizations can have multiple products among which some resources are allocated. The same MNCs, MNCs has multiple progress. Types of resources can be divided MNCs, MNCs progress include, environmental education, building efficient, accounting and production systems, achievement processes, legal services, reliable management,

process, prevention and health making. Programs may be ongoing and continuous, provide or receive new funds.

Area 1 (1991) and Council (1992) issues output-oriented variables related to the evidence of low-income households (LIH) program progress. They are the *outcomes*, quantifiable health benefits, changes in access to health, housing and employment, group cohesion, health service delivery, sustainable resources or poverty level, measure satisfaction, and capacity growth in resource management and client making by beneficiaries of ECA programs. In appropriate organizations (A2a) program outputs surround the provision of services or the corporate expression of profit as client making strategy (Census, 1991; Ward, 1994).

Voluntary organizations are often largely constrained by finance independence. As such, the number and types of programs adopted must be carefully chosen to reflect the strengths and capacity of the organization. Therefore, two elements of organization outputs are potentially important: the appropriateness of the programs chosen in terms of the abilities and priorities of the organization, and the needs of communities and the quality of the programs once chosen.

However, unlike profit-making non-subsidized or social organizations operate in a vacuum. As ECA manages health care in the Bay Islands, Honduras, it also finds its segregated domain to reflect resource management interests. The Association's performance, role and qualities are influenced by features of the Bay Islands. The Bay Islands provide the substrate for ECA's location and its position that a single older brother of the Bay Islands influences the effectiveness and the feasible range of ECA's mission. In a much, understanding ECA requires the analysis of features of the socioenvironment of the Bay Islands. While many features of the inputs, production processes and outputs are directly under control of ECA, many of the Bay Islands' educational characteristics are outside of ECA's ability to influence in the short term.

## International Context-Oriented Variables

Reiter (1994) finds that both the nature and intensity of sequentially coordinated power management arrangements are dependent upon cultural, economic, and political institutional contexts and the cultural mission environment. Sequential power-oriented variables evaluated by Reiter and Rynes (1994) include social and resource integration and heterogeneity, linkages between the organization and various levels of government and other organizations. In addition, joint administration, facilities and services, conflict patterns and local issues, cross-level and distributed, revenue distribution, and propensity to share gains are measured. Further, institutional factors including political and governmental support, community norms, traditional gender roles, and the propensity of stakeholders to the shared mission have potentially influence organizational performance.

De Dreu (1995) indicates the number of individuals with claims to resources, the amount and type of conflict over resources, the consistency of information about the resources being used or not, and information about the consensus potential of benefits derived from the resources based on broad institutional indicators of the potential for powerful MOUs. Further, the rules governing the uses and benefits of resources (legal or quasi-legal framework), any anticipated changes in the rules governing resources, and the perceived legitimacy of current and anticipated rules governing use of the resources based on their views on the approach of the political, legal, economic, and values-based approaches.

## LOMs, Groups, MIs and CJs

To the extent that MOUs and other MOOs function as a modus operandi for working, organizing, and reducing conflicts (theory of the law provides a useful analytical approach to increasing understanding). However, similar MOUs are all MOOs privately (it may well due to their

propositions for studying local-level entrepreneurship initiatives. Because our typology distinguishes between organizational form (with respect to local development associations (LDAs), cooperatives, and mutual associations (MAs)), while the typology regarding size is classified based upon the resources for their members, the placement of entities resulting in varying within the organization, representation; however, the degree of interconnectedness within the association and the manner in which the organization utilizes financial resources (Table 1-1).

Table 1-1. Distinguishing Characteristics of Local Organizations

	Local Development Associations	Cooperatives	Mutual Associations
Resources	Resource intensive projects for the area residents.	Increase profits through economies of production or consumption.	Advocate members interests without specific profits, specific activities for members.
Agency	Quasi-governmental, may have government administrative.	None, but may be represented and supported.	Only do what is best for their members according to it.
Proximity	Multiple locations in various areas.	Single or single location.	Single or multiple, depending on agreement of members.
Membership Community	Members (could be volunteer basis or compensated).	Consistency of members' resources.	Free and/or contribution of activity.
Resources	Assessments and contributions (often no funds).	Pooling of member resources or shares.	Fees share, (funded MA), not by individual MA group activity or external, may and exclude members.

Adapted from Pearce and Doherty, 1999, p. 10.

The principal focus distinguishing LDAs from both cooperatives and MAs is that they undertake a variety of different types of projects benefiting the area of residence of its

membership (Table 3.1). LDAs tend to undertake more public group-oriented activities than cooperatives, and to have more heterogeneous membership compared to mostly family business cooperatives like LAs (Teece and Upton, 1990).

Cooperatives are, perhaps, the most centrally related form of local organization and are distinguished from the other two organizational types primarily due to their relevance to firm growth and survival and the shared responsibilities in place for the pooling of resources. They are private associations with respect to the benefits accruing to the members they tend not be adequately analyzed in terms of the identity of the firms. LDAs are distinguished from cooperatives by the importance for membership in the organization.

LDAs are not necessarily defined by geographic boundaries, nor are they determined by a common pooling of resources. When membership is restricted around a common issue (religious power lead, or conservation) then cooperatives are general functional LAs. LA-restricted control is particular characterized as agents of the members (race, religion, gender, occupation) are termed "supergroups" like "We are one. We will be less encompassing than LDAs...". In some of these groups, once they are restricted with regard to race, gender, occupation, and with regard to skill or private power" (Teece and Upton 1990, p. 69). Within LDAs and LA there is also adaptability described by the traditional model of the economic firm:

It would be unusual to find businesses which are very closely linked and tied to any of the other categories (McAllister, 1987; Teece and Upton, 1990). However, RCGA is best considered a functional control structure and one underlying an external property certification the membership. It is not the LDA that decides the mechanisms in place to determine membership and linking firms across a cooperative framework and privately-owned owned providing them benefits to the members by the exclusion of others.

Role of the distinctive features of local/national advocacy organisations in the way they are often associated with the broader social impacts of their projects and programs. As UNDP (1997) notes, merely addressing a service, it can be porous to bring about changes in values being. It can be basic, values, convictions and knowledge. It can also be turned a part of the everyday culture that merely suggests (Durrheim, 1996, p. 59). NGOs are addressed as examples of path to experiencing in view of its cultural dimensions and change programs.

Profit-making organisations are not principally evaluated by the external impacts of their industry (NGO vs. business). Profit-making organisations and their stakeholders are generally evaluated by the financial return on their output and potentially increased by the external impacts of their production (e.g., decreases in food unemployment or pollution) (NGO and, predominantly, other NGOs use change programs (outputs) as a means to achieve their broader social goals (outcomes). NGOs' influence is often seen as difficult among the primary constituents of NGO credibility. This research response makes the traditional concepts of an economic firm association subduing.

In order to express the diverse orientation of our NGOs like NGOs to a traditional economic organisation it may be useful to make a new term. With regards to those listed for any public concern, NGOs like NGOs are labelled Cross-cultural Organisations (CCOs) Cross-culturalism is "the cross-cultural movement dedicated to the betterment of our world, world, and political circumstances" (Barber, 1995, p. 2). Cross-culturalism are interested "... to work with our fellow citizens in bring about the changes in values, habits and public policies that will allow us to live in the society with the environment movement works to do the same... to safeguard and enhance our future" (Barber, 1995, p. 15). Thus, NGOs can be assessed (CO). Viewed in terms of economic theory, NGOs can be analysed as a Cross-cultural Firm (CCF). In statistically significant relationships are found between different types of NGOs's outputs and impacts

systems, the conception of NHCs as a CP, distinct to institutions from a traditional economy. Thus, as suggested by previous English literature concerned on environmental-oriented NGOs, could be characterized as Conservation Organizations.

### Conservation Variables

The behavior of individuals from society is considered and communicated under social aspects. CO behavior affects local employment, the delivery and flow of natural resources, and general social welfare indicators including watershed ecological services. In addition to anticipated profit-seeking firm outcomes, CO outcomes include changes in resource levels; general health, nutrition, or in climate and fisheries regarding the environment. Facilitating protection, preservation interventions and community participation are generally considered broad operational goals of local NGOs (Grossman and Upoff, 1994).

Grossman (1992) and Arnould (1995) evaluate their American Foundations (AF) programs concerning the influence of progress in foundations such as implementation, self-efficacy, trust, self-sacrifice, and living modestly. They report the number of people impacted by the AF programs, their success/failure rates, and the demonstrative effectiveness of the programs. Changes in local issues, policy goals, and the "magazine effect," i.e., the applicability of aspects of the organization and its programs to other settings are assessed. From the point of view of the organization, outcomes include organizational identity and responsibility.

For RICA, the set of intended outcomes is gleaned from its mission statement and by-laws. Specifically, RICA's primary statement indicates a commitment to conserving, maintaining, resource development, enhanced environmental resources, and the conservation and preservation of the flora and fauna and natural and historical properties of the Bay Islands (Chambers, 1990).

In general, NGO mission statements are articulated, long-term and often competing goals and objectives. Rather than provide present and reasonably objective resource assessments (which

Indicate the organization's intended outcomes. Programs are the vehicles by which organizations meet their goals and objectives. MCA's ongoing programs should be designed to work to meet its overall goals; outputs should map to intended outcomes if MCA is successful.

Finally, the ability of MCA to manage the Bay Islands' coastal resources will only be influenced by the Bay Islands' environmental context, the natural resource base, and the structure and behavior of the organization. MCA's effectiveness is influenced by changes in supply and demand conditions which govern and limit system-wide. For example, when there is no oil spill off the Gulf of Mexico, a change in fishing practices in Mangrove, or fisheries in other parts of the Caribbean, or a flood related to sea level rise in the United States, the supply and demand of seafood bases in the Bay Islands are impacted. If the fisheries government enforces environmental laws, changes happen downstream upstream, marine populations are reduced, or locally unique and water limited fisheries, the need for sustainability of MCA to influence the quality and quantity of fisheries bases in the Bay Islands is affected.

#### **Appendix D: MCA as a Communication Tool**

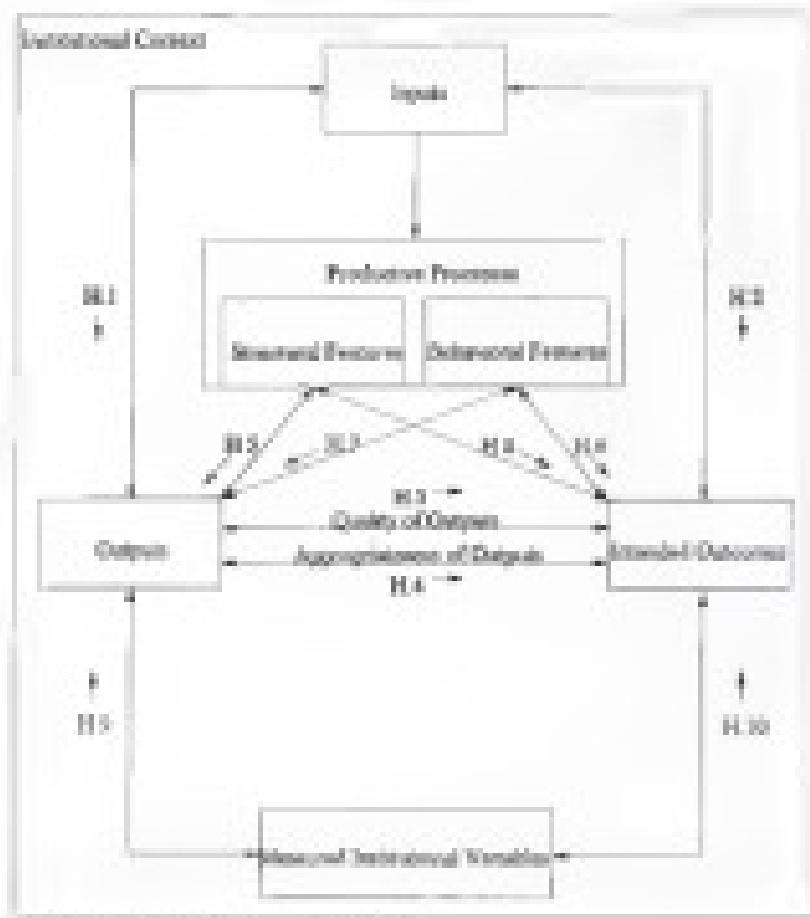
In order to facilitate the understanding of MCA, the variables which may influence the ability to predict MCA's performance can be represented in four categories: output-oriented, outcome-oriented, organizational context-oriented, and predictor process or management-control theories. The theory of that analysis is to be aware in which predictions inputs are converted into objective fulfilling outputs and the potential correlations between outputs and control variables. In addition, the hypothesized, research, and culture based facilitated context and the natural resource context influences the quality of the findings must be addressed. They are results of MCA's direct influence and potentially impact the broader societal outcomes of the fisheries.

### **Developing the research hypotheses framework in Chapter 1 (Table 1.1), Figure 2.1**

Figure 2.1 highlights relationships through a model of BICA as a *Comprehensive Plan* under the *auspices* of the Bay Islands. For example, on the left side of Figure 2.1 the arrow between Inputs and Outputs illustrates R.1 represents the hypothesis that "improving inputs between BICA's inputs and the quality of its outputs" BICA is viewed as a CP and relationships are proposed to enhance the *outputs* and reveal the conceptual and empirical differences between traditional *outputs* theory and CPs.

In Figure 2.1 inputs are seen as the transformational *outputs* production processes. The quantity and quality of available inputs influence the structure and behavior of BICA. In turn, input availability influences the choice and quality of BICA's programming and the measured outcomes of BICA's assigned goals. In addition, BICA's programs, behavior and process influence the availability of inputs. Program choice and process influence BICA's available resources and behavior. The proposed assessment of BICA's goals helps to form the organization's new goals, program structure, behavior and its ability to handle new resource challenges of the Bay Islands provide the context within BICA's dynamics and influence its structure, behavior, and/or performance. Finally, BICA influences the function and overall human development of the Bay Islands, thus influencing its future role and potential for success.

In short, each of the proposed components within BICA as a CP interact with each of the other components over time. These relationships are dynamic, volatile and recursive. The analysis provides a snapshot of these interactions. The hypothesized hypotheses reflect a less descriptive methodology where decisions are derived from tradition and common sense (Figure 2.1). Chapter 4 describes how the above was proposed to test these relationships as derived. The methodology subsequent describes the approach to when these variables potentially influence BICA's performance can be distinguished and evaluated from among other many variables proposed as determinants.



Key: Solid lines indicate unidirectional relationships.

Dashed lines indicate bidirectional relationships.

Example: H1 → means Hypothesis 1 tests the relationship in the direction

Figure 3.1 Hypothesized Relationships of IMCA as a Construction Firm

## CHAPTER 4 THEORETICAL METHODOLOGY

### Introduction to the United States research

To gain a deep understanding of BCA and contribute to BCA research, understanding of their members in the greatest extent possible, as required research methodology is appropriate that:

- incorporates the explicit knowledge of the members of the BCAs and BCAs;
- induces the BCA's ability as self-aware and to observe the situation;
- enhances the potential role specific features of BCAs; and
- makes any potential characteristics of BCAs which might generalize to other public organizations.

A methodology building on the analytical and empirical framework outlined in Chapter 3 is adopted from existing research methodologies to meet the problems of BCA's performance. The descriptive methodology focuses on a perspective that shows a less than definitive, broad representation are through a process very role-specific characteristics, and the contextual and culture values organizations operate at important to the achievement of organizational goals. These features are also complementary information to a traditional analysis of the structural and behavioral characteristics of an organization.

In this chapter the research methodology is reviewed including a description of the perspectives undertaken in the reported study. The next section describes the ethnographic techniques that are applied upon case study methods in the attempt of providing the most comprehensive understanding of BCAs possible. Subsequent sections will detail the objectives and procedures employed at the ten empirically study stage of the research methodology. A review and

summary of the adopted research methodology, its procedures and objectives comprise the fourth chapter.

#### **Overview of the Adopted Discursive Research Methodology**

A case study approach is adopted in investigation of the epistemology of local organisations. It draws its premises at the bottom (cf. e.g., Gummesson, 1993; Armen, 1999; Nicolai, 1999; Evans and Updegraff, 1993; Updegraff, 1994), and the role discursive based reflectivity plays study methods (Gummesson, 1999). However, a more systematic interview and survey approach is considered most suitable study methods to enhance the potential predictive power of the research effort. A hybrid methodology combines the positive aspects of both deductive and inductive reasoning, and qualitative and quantitative information, while mitigating several of the weaknesses of using either one type of approach on their own.

A *bottom-up* approach developed in the interviews (Figure 4.1) serves as the underlying framework from which the analysis proceeds. The ethnographic research design can be divided into two phases, initial construction and model fitting. The initial construction portion of the research requires primarily inductive reasoning, while the model fitting portion requires primarily deductive skills. The induction portion yields quantifiable and unquantifiable data, while the deduction portion, traditionally, only makes use of quantifiable data (Gummesson, 1999).

The initial construction portion of the framework involves an iterative process of variable definition and modification based on the results of semi-structured or more structured interviews. The underlying model is adjusted with each subsequent interview and new insights. Adjustments are supported or refined through the process of iteration. Formal surveys and questionnaires are employed, but also open-ended questions and dialogue techniques are also used. The researcher needs strength, careful listening, empathy and conversing with individuals. Studies employing

theoretical approaches more productive than more individual approaches in terms of understanding problems and finding corrective solutions (Schiffman, 1997).

Central to the ethnographic approach is that individuals understand their own situations better than researchers do. In order to understand local contexts, it is necessary to understand how individuals perceive both current and future situations, constraints and opportunities. It is not possible to understand the influence of different policies or stakeholders unless they are considered from the point of view of the stakeholders (Becker, 1979).

After 11-20 interviews the range of new information derived from further interviews provides little additional insight into the predictive validity of the model and a transparent analysis emerged from the transcripts might gain the researcher extensive power. The benchmark of theory emergence is borrowed from the Unified Loss Theory. Gutiérrez (1997) recommends completing at least six theory interviews prior to constructing a composite model. The usual number of interviews depends upon the complexity of the subject studied, the quality of the information collected and the skill of the researcher.

In the study 11 interviews were conducted of BECA's members while considering over a one-month period prior to initiating open a face-to-face survey dataset. Ethnography was conducted interviews rated from 30 minutes to five hours. Covered topics were reviewed relative to understanding BECA under the context of the Bay Islands. Degree of cultural relatedness between interviewees were evaluated during the month transition period. The interview facilitators only communicated of the Bay Islands' environmental context and the role of BECA within this context.



Source: Adapted from Qishan, 1999, p.12.

Figure 4.1 Model of a Hybrid Inductive-Deductive Research Methodology

If coding theory is well-grounded, it supports the many of the predictor variables selected will be consistent with previous theoretical knowledge. However, survey variables are selected to include "true" "true-color" and the researcher's "false" epistemology (Spindler, 1979, 1980; Spindler and McCarty, 1973). Additional variables may be selected which are not necessarily based on the literature. Once the theoretically predicted variables may be inappropriate without particular context. They are dropped from further analysis. Consistent with Spindler (1979), the interview process has the potential to be both more comprehensive and more efficient than those derived deductively. The model of BECA will differ significantly from a model deduced solely from the variables found in the literature.

The model writing portion of the ethnographic framework is the family of techniques employed by quantitatively-oriented analysts. A formal questionnaire is constructed based on theory and, as the case, the situation at hand may direct this to indicate inquiry. The survey process is implemented according to standard research procedures (Figure 4-1). Quantifiable data are collected and organized according to assigned methods. Models are specified and tested for significance according to theory, logic, statistical comparison and estimation techniques. The assessment portion of the analysis provides a way to re-examine the relationships and correlations among the measured predictors and dependent variables under analysis.

Social scientists prone to more descriptive work have a tendency to emphasize the first portion of the ethnographic design. The more quantitative family tend to address only the second phase. Together, the two portions of this framework provide a more complete research design than either of the two parts taken separately. The ethnographic framework is particularly suited to situations where theory is incomplete or under-developed and where prediction is among the central objectives of the research.

This approach is appropriate in an analysis of BCA for several reasons. BCA members formed BCA. They follow and evaluate BCA's mission and perform its projects. They clearly have the greatest knowledge of BCA and of effects on them based upon their perception of reality within the BCA Islands.

Although "members," the pool of interviewees is not in practice an "informed" population of BCA, additional programs, but rather to give an understanding of how BCA works. This understanding is more useful than BCA members themselves. The members' opinions of the Buses of BCA and the Bay Islands provide the best available information toward the evaluation of these research objectives.

#### Implementation of the Hybrid Research Design

The analysis first concerns the inventory questions adopted for the study. It presents in some places one and place two procedures and the position of those effects.

##### Level of Analysis/Analytical Categories

The first of analysis is conducted first in terms of the relationships within the institution system. In this case we concern ourselves at the level of the local organization. The local organization is more closely control within the local community. BCA provides a common forum for the expression of some of the interests of local individual members. In fact, individual members may represent other interests and are influenced by issues external and internal to the organization and the local community.

Since BCA has three institutional and seven eight local islands' managers throughout the Bay Islands, it can be considered a regional level organization. However, the majority of effects are independently caused by one of the localities located on each of the three principal. The

**Healthcare**: Despite no perceived or facilitated transfer between policymakers, HCA is considered to mainly implement local effects.

From a healthcare system perspective, the actions taken by a small local organization have greater impacts on the general health of the others and focus on the community ecosystem level. HCA has principal secondary impacts at the local/primary system population level, but also at the broader regional or landscape level (Grootenhuis 1992, 1994).

Given its relatively small size, analysed households typically fail to have easy links to have the greatest amount of knowledge of HCA's approach, structure, functions, values, strengths and weaknesses – its membership. However, HCA has full members who are residents and those who are nonresidents of the five islands. These members who are nonresidents are either workers or part residents; the former comprising majority of the group. While local nonresident members are engaged in HCA, they are least likely ultimately involved ('on a good day'). These members are likely not influenced or interested by HCA's performance.

Part residents may be influenced by HCA's performance. However, they cannot be reasonably construed to gain personal benefit or satisfaction from HCA's function. They are unlikely to be informed about their interests. The performance of, *inter alia*, members relying on the efforts of Oranje, Uitho, or Rottum is most likely to be influenced about HCA and perceived task and responsibility due to performance. Current, which, requires HCA members nominate the target population for their analysis.

A gross definition of the target population is indicated by several factors. According to HCA's bylaws a current member is an individual or business which has facilities for the current calendar year (from Dutch: *presente overeenkomst*). However, due to two management practices of HCA, the gross definition does not provide an accurate picture of those individuals and businesses which are actually active or participating in the ongoing performance of the organization.

First, it is standard practice to receive a payment due you in the last unpaid year of an individual's membership (plus Pensions, pension arrears). For example, suppose someone became a member of RICA in 1990, and the last year she/he did not pay was 1993. She/he would be a member until 1995, and as such in 1995, the payment for a 1994 member. This would be a member for 1994 and 1995 who "lives alone" in 1992-1993. This practice insures the annual, current, financial membership of RICA. Finally, the number of current adult members numbers is severely reduced because RICA is "a part-time membership organization."

Secondly, the RICA chapter of RICA ultimately receives all of the membership dues collected by any of the three chapters. This provides a clear distinction to the other two chapters to encourage financial contributions in their local communities. Not surprisingly they have done very low age-member numbers from older Latinas or Chicanas over the years, despite an active RICA presence in Utah.

To understand the performance issues of RICA from the perspective of financial stability in its operations, a clearer definition of membership is helpful. RICA members are defined as all those individuals or households which contribute financially to the local RICA programs and activities in the Islands. A majority of the time, adult members living on the Islands are nonmembers from the outer communities above and below the strait, financial and performance of RICA. They also comprise one of RICA's most important constituencies. Potential membership RICA can help to greatly facilitate the organization institution and voluntary operations with no payments.

RICA's mailing list is maintained at the RICA office. Of the 239 individuals on the mailing list over 100 live either on the Islands or mainland in the northern country (mostly the United States). Eighteen local businesses are listed as contributing sponsors on the 1994 list. In 1992 there were 16 on the list as new grants were added to many as 19-20 (e.g., personal possessions). Over 60% of the remaining 200 members hold elected memberships. About 10 adults and a

about products are *Brokers* (n=6), *Buyers* (n=1) and *Sellers* (n=1); responses are from members. Twenty-three adults and three students or members of BCCA-Canada. In addition, BCCA-Canada has 10 "members-at-large" (out of over 100 people). The first Institute faculty/staff and business owners as well as members.

After several meetings with the Board the 21, 17 and 19 cases/records which members on the clients of Peetco, Uxio and Oceango are identified, respectively. The Board file is supported by evidence that indicates regular or local participation (adviser and committee member) by the BCCA-Advisors (approximately 21 individuals) and business members by members of the Board of Directors (regular and participating members). In sum, 62 BCCA-members plus 10 Uxio members and 10 Oceango members represent the population of 119 adult members, potentially business members of BCCA.

### **Step 2. Data Collection, Analysis and Survey Development**

In the first stage of the empirical portion of the study we effort to obtain a detailed, yet a complete picture of BCCA as a Communication Flow (CF). Stage one employs largely interview-based research interviews and focus participant discussion techniques developed and refined in the description of the cognitive processes and cultural anthroplogy.

There are three principal objectives associated with the first stage of the empirical process of the study:

- (1) Provide a descriptive qualitative description of BCCA as a CF. This description includes BCCA's inputs, outputs, resources and characteristics of the productive relationship and processes.
- (2) Provide sufficient information to examine the descriptive organizational components and typologies of productive relationships over a geographically-distant organization. This will provide a preliminary model suitable against the general population of BCCA's membership, and
- (3) Provide a detailed description of the institutional control values which BCCA displays such that an ability to predict can be evaluated in light of the enabling and defining features of its structure.

Interviews focused toward assessing these multiple objectives focus on identifying the relationships among elements of BCA in various management processes. Responses include the several dimensions: assessing member participation, project implementation, organization and member interests, characteristics and outcomes. Interviewees are guided by the questions based on previous studies summarized in Chapter 3. Interviews are guided from a review of members of BCA and responses of various groups of interviewees.

An initial strategy employed focusing on the members listed in the literature. Strategic selection is apparent of the factors specifically with regard to BCA. Additionally, open-ended questions encouraging organizational responses, characteristics and performance allow for unique insights of BCA to be revealed. Beginning with a large pool provides focus to the interview and reduces the time required per interview. Further reducing the number of interviewees provides a brief, the questionnaire later is less restrictive to those involving the divergent and productive processes.

Initial interviews of BCA's membership are based on the current list of members obtained from the main office. Selection is based on a consecutive recruited research sampling procedure. This procedure is used to reduce the risk of those who are most active in the community and in the organization. Beginning with initial BCA volunteers working in the main office leads to interview with other identified active members. Based on their recommendations, members who have an informed opinion of BCA and an institutional context are identified.

In the process of conducting major one interviews, first multi-type recording and then transcription were utilized as information eliciting procedures due to preferred bias in the information elicited. Information collected using these techniques often appears to reflect what the respondent felt the interviewer or the leader of BCA would want to hear rather than her actual knowledge/space. Responses differs appear in before and after responses

would be conducted when formal recording techniques were used. Unusually, recording techniques had largely been rejected by interviewees in favour of unstructured recording. In response to this, we immediately followed the completion of the interview. The researcher then employed the de-frag and unstructured and semi-structured interview as the final alternative and most actively conversational interviewing technique. Information elicited through this interview technique was perceived to be decidedly more reflective of the opinions of BSLA members and communicated with the right of the sign language.

Twelve initial interviews in conjunction with a literature review formed the basis for developing the first draft of the survey. The formal written format was used in its original and proposed and interviewees again engaged. The resulting formal written survey was tested and further refined for language structure, length and content by again interviewing 10 of the 11 initial interviewees including three non-signers of Spanish. It was felt that a maximum interview time people often spend was around 20–30 minutes. Previous helped interviewees to interpret English in English their results and evaluate language difficulties.

Interviews subsequently resulted in a formal written and oral survey format covering the related aspects of BSLA and its functional outcomes. The oral format served as the principal source of quantifiable information. The written format specified those members who could not be contacted, did not have time for the oral format after several attempts, or were not comfortable with the oral format.

The outcome of the value of this approach where pre-completed survey documents along with summaries of the questions ultimately used in the survey responses. All of the theoretically predicted variables were included in the model derived from this approach, the benefit of the broader process might be longitudinal gains. It is expected that some of the variables used in the interview will be inappropriate to the understanding of BSLA. It is also expected that there are

capita in BECA and the Bay Islands region is closer to the model formation stage of the methodology. Application of the theory of the three main monetary and monetary approach requires the improved understanding of the new more environmental methods.

Local prices for some of the forest resource measures proposed by Arnes and Upton (1994) are appropriate in BECA including changes in environmental, cultural and biological regarding the several responses. None of the measures implemented by Arnes (1992) and Connell (1992) are appropriate measures for BECA. The number of people affected by BECA programs and the distribution of benefits derived from the programs are applicable economic measures used in this study.

Three of seven measures above are environmental variables measured by Arnes (1992) and Connell (1992) were retained by the local survey measure. The ability to facilitate movement is associated with low response variables reflecting local and general fuel cutting programs. Capacity growth of the organization and the ability to make substitutions please are also addressed in local survey. Member service provision measures (Arnes, 1992; Ward, 1992) and cultural service delivery (Arnes, 1992; Connell, 1992), are assigned as non-measurable output variables.

None of the input variables proposed in the literature are included in this analysis. Human capital assets including labour force, education and training are included in descriptive variables. These measures are represented by a member profile. An assessment of the influence of several aspects on the formation and proliferation of BECA is incorporated into the evaluation of the several economic sectors of the Islands. Many of the physical capital measures are incorporated into the estimated Returns of BECA. However, they are represented as qualitative and extremely accurate information rather than quantitative in the valuation for the forest survey.

All of the environmental related measures proposed in the literature are addressed. Institutional factors are evaluated either through the questionnaire or, namely, through participat-

and entrepreneurship, editing literature and internet resources. With the exception of technical literature (Khalil, 1992), such of the production process requires either that a plan in the formal survey to be present within the parameter system of BECA.

In sum, five of the outcome and output variables listed within the literature are precisely within the purview of BECA. On the other hand, many of the institutional outcome, producer, general and input variables are well-suited to the literature and appropriate to the analysis of BECA. However, not all institutional variables are conducive to a survey approach. Those variables that can be meaningfully evaluated by means of survey are limited. Those variables that cannot be addressed in a questionnaire are evaluated via other methods (interviews, telephone). Due to the specific needs of the survey, some of the variables appear precisely as they are presented in the literature. Rather, a somewhat approximation of the expression is found which is meaningful in the methodology.

These new variables include a review of documents dealing the history, mission, objectives, activities, membership, training, funding and other aspects of BECA. Existing documents prepared by the United Nations Development Programme (UNDP) in cooperation with the Government of Burkina (1991) and by Regional Economic and Development Conference (REDC) prepared by the United Nations Agency for Development's (UNAIDS) Peer Policy Project provide baseline information from which to assess the institutional context. Complementary information was drawn on BECA institutions and local popular publications (i.e. *The Link Times*, *The Current Telegraph*). In addition to other sources of information, membership of BECA, financial role in the community provides insights into BECA's evolution, adoption and success that could otherwise go undrawn.

Author and early participant observation in the community and its BECA activities, meetings, daily operations and progress amongst members of the local people regarding the

lateral and mediation for this project. The writer's role being of research user to developer, the writer collected information publicly for the first exhibition in 2002/3 and the Bay Islands. On these visits, hundreds of questions from users spent in the BICA offices, talking with an AIDS awareness survey and education project, providing response mechanisms, reviewing the plan, selling books and pamphlets, and collecting data about BICA.

An informed citizen was made to compare as quickly and completely with Bay Island society as possible. Lodging was arranged in one of the traditional Bahamian guest house accommodations rather than as a hotel or with proprietors. Attentive was paid to comparing our everyday norms and relationships. As strategy was made to understand, within the low context, the perspective of each of the many different people of the Bay Islands: musician, violinist, engineer, child, poor, rich, between, free slave, slatope, ship crew, plantation worker, the master, big boat developer, shifter, woman, man and child.

These first approaches were open to speak with BICA members and non-members regarding BICA's role in the economic development of the Bay Islands. Impression about the efficacy of their current and past programs were sought. Overall characterization of BICA and the Bay Islands that might influence the success or failure of future research interests or long-term economic development interests were discussed.

#### Stage 2: Increasing and Formal Modeling

In phase two, the research shifts from descriptive and qualitative portion to the more deductive, planned modeling portion of the ethnographic research model. Thereby we aimed to extend the clarity of the impression, additionally, in order to set responses by constituency category (business or individual) location (Hampton, Lutts, or Elbow), race (English, gender and nationality under Board of Directors, Government).

Measures are related to a mixture of different types of outcomes. In most cases responses apply the degree to which the individual believes a particular feature of BECA or of the firm's labour market. In other cases, responses indicate the degree to which the individual believes a particular feature is either necessary or appropriate for BECA to reach its objectives. The survey employs a 5-point Likert scale to provide ordinal rankings of predicted responses to each statement. A "no opinion" option provides a sixth possible response to each measure.<sup>1</sup> There was assumed 100 per cent of the survey participants had no opinion. In addition, responses are encouraged to elaborate on responses through open-ended questions found in both sections of the final survey.

Survey measures are divided into four sections: intended responses (1) management's beliefs (2) statements; intended and actual influences on organisational behavior (3) statements); and member characteristics (4) statements). Outcome-oriented measures are intended to assist partners to assess outcomes rather than hypothesized or intended performance. Output-oriented measures are concerned with performance and defining the appropriate role for the experiment given the predicted outcomes.

Measures concerning intended influence on BECA include an assessment of the potential generalisability, process and outcome based institutional context. Organizational influences on BECA's performance include its structural and behavioral characteristics and measurement of its inputs.

Measures of member characteristics provide a profile of the membership including age, nationality, gender, ethnicity with other categories, level of education and first language. For example, The information provides the possibility to draw distinctions between personnel

<sup>1</sup> Appendix 2 reports the frequency, mean and standard deviation for each of the statements included in the finalised survey.

percentage of preferences among the three brothers (Little, Kansas, and Georgia) of the same generation, by gender, language and the language<sup>1</sup>.

Approximately 20 percent of respondents speak Spanish as their first language. Three brothers were confirmed as Spanish speakers in English (depending upon individual needs). When, although certainly not all, they brothers are fully bilingual. About 60 percent of responding brothers are Floridaans and 30 percent of respondents are women.

Given the relatively small number of brothers, the entire population of 11 constitutes the sample space. Whenever possible, each brother was contacted by telephone to arrange a meeting. When unsuccessful, the home or location of each individual was noted up to three times, if necessary, in order to make and 12 face-to-face survey appointments. Nevertheless, it proved highly time consuming to make and keep appointments. Telephone are not widespread among the membership. Addresses are not particularly useful. No RICA meetings were conveniently planned and census or state congressional area are not available. As a result, many local services reflect, where responses may come as remarkable for someone who continues to struggle daily.

The general survey process was conducted over a one-month period by one person. Plan for conducted 6.1 completed surveys, 34 total and 7 additional Runtas, 1.0 total and 2 additional in Little, and 1.0 additional in Georgia. On Runtas 20 individuals could not be contacted after three visits. There were two refusals in Florida. Two individuals in Little refused to be interviewed and 14 could not be contacted within the time allotted. There were 20 refusals and seven individuals could not be contacted in Georgia.

Response rates in the survey are 67.01 percent for Florida, 59 percent for Little, 67 percent for Georgia, and 50 percent for denied interview with National membership of RICA, including women.

<sup>1</sup> Appendix 4 represents a summary of descriptive characteristics and mean responses to each of the closed-form questions by type of survey (national, rural or local) language (Spanish or English), university (Floridaan or non-Floridaan), location (Florida, Little, or Georgia) and gender categories.

program. Reporting statement commentaries (one average, one), 40 percent of the Business member population, 18 percent of the Union, 12 percent of the Chamber and 10 percent of the non-member population responded to the first item of the survey.

Refusals constitute nine percent of the population. They are due to two principal reasons: "No time or interest" and "Interest but knowledgeable enough about the organization to provide informed responses." Temporary absence is the most common reason for non-participation in current members (21 individuals). Reasons for absence include: business, illness and vacation.

The interview lasted for an average interview of 15 minutes and the maximum is 1.5 hours. The median time is about 45 minutes. Temporal variation in survey responses is explained by the number of statements or comments provided by respondents, the length of respondent responses and the degree of agreement during the survey. Interactions in questions were many; differences are considered as the member's place of business.

Following the survey development and any necessary stages of the hybrid research design, the derived survey data are organized toward BICA's components, processes and patterns. Categorical data represent the respondent's verbal expression of the degree of variance, variability and correlation among the dependent and independent variables. Quantitative data pertain to all of the performance features of BICA. It is likely that some of these perceptions are "shared" and others are highly individualized, while at times they do not reflect "today." Relationships among BICA's conceptual and behavioral characteristics, processes, environmental conditions and factors on outputs are analyzed using appropriate parametric and nonparametric statistical techniques. Discriminating techniques are employed to identify combinations of variables that predict outcomes in organizational output relationships. Correlated relationships represent covariations among the individual member's perceptions of Business of BICA and are not intended to control, measure or predict.

d. Best with-individual linear regression approach is used to examine other relationships except in the set of four variables. It is trying to explore this simple linear relationship exists between the related responses of members' perceptions of BICA's performance measures. Positive scores are denoted as satisfaction; negative scores reflect dissatisfaction among the surveyed individuals. Second degree interaction between performance and appraisement effect is specified to investigate the correlated relationship between response and outcomes. T tests are used to evaluate the statistical probability of the existence of a response and/or scores for relative performance of measured and unmeasured models.<sup>12</sup> Desirables are designed to reveal the relationships among the predictive and dependent variables and to test each of the hypotheses and relationships.

T statistics are used to measure the statistical significance of individual parameter estimates. T statistics are also employed to estimate the probability that the nonparametric results by category are statistically distinct on a question-by question basis. Hypotheses test of the significance of parameter values are evaluated using the standard Student's *t*-test. However, to determine whether the unmeasured indices may statistically distinct from one another as appraisement; test for unequal variances, sample sizes and independent samples or appraisement (Jha, 1991).

The parameter analysis results in a model of BICA as a Communication Firm. The variables of the performance index may represent the characteristics of BICA and aspects of its key clients' organisational context. The values of the categorical variables represent the degree to which BICA exhibits such characteristics.

<sup>12</sup> Appendix 3 reports the relevant estimated relationships including parameter values and their statistical significance, estimated confidence in the existence of a regression, observations and degrees of freedom for each estimation.

<sup>13</sup> Appendix 4 reports the result of the specified models for each of the 10 proposed hypotheses.

The results of these enhanced estimations are analyzed in light of the sample characteristics (incomes and properties) observed over the data collection period. The inclusion of complementary qualitative information provides a more complete assessment of HCA and the quality of the data or the observational skills of the researcher.

Particular attention is paid to modeling predictions of performance which are consistent with the literature (or best representations). In addition, the performance features of HCA that might provide some or unique insights to the literature are tested. The analysis is positive or approach-oriented, describing "what we" might see in certain cases reports of HCA which are helpful to an assessment of its relevance. These concerns ("what should be") policy recommendations are appropriate and are highlighted in Chapter 7.

## CHAPTER 2 RESULTS: AN ASSESSMENT OF THE NEW IMPLEMENTATION AND PERFORMANCE

### Introduction to Reporting the Results of the Research Object

The results of the third survey are interpreted in light of the information provided in Chapter 1 on the research methodology. In this survey, BCCA members are asked to evaluate the degree to which they agree or disagree with each statement. Readings are based on a five-point Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). Four or more points of agreement with the statement. There is a neutral response. Two indicate disagreement and one or two strong disagreement. Due to need to draw more about members' characteristics, no gender is reported. Missing values are not included in the reported results, so some scores below one are not possible.<sup>1</sup> Responses are reported and analyzed without shared items. To draw scores for each of the measured features of BCCA and its Bay Islands, (1) a general representation of the perceptions among those assessed (means), and (2) a detailed description of the results of individual analysis of their proposed relationships. To evaluate the hypotheses proposed in Chapter 1 to understand the features of BCCA and the Bay Islands potentially influencing BCCA's performance are:

- (H.1) A relationship exists between BCCA's capacity and its capacity.
- (H.2) A relationship exists between BCCA's capacity and its members' evaluations.
- (H.3) A relationship exists between the quality of BCCA's programs (output) and the achievement of its members' outcomes.
- (H.4) A relationship exists between the appraisals of BCCA's program outputs and the achievement of its evaluated members.

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<sup>1</sup> Frequency scores and related deviations of responses to survey statements are listed in Appendix 1.

- (H.7) A relationship exists between the environmental features of BCI A, and its targets;
- (H.8) A relationship exists between the environmental features of BICA, and its intended outcomes;
- (H.9) A relationship exists between the intended outcomes of BICAs and its targets;
- (H.10) A relationship exists between the intended outcomes of BICAs and its intended outcomes;
- (H.11) A relationship exists between the environmental features of the Bay Islands and the success of BICA's preserving (targets); and
- (H.12) A relationship exists between the environmental features of the Bay Islands and the achievement of BICA's broad stated outcomes.<sup>11</sup>

Recall that BICA is claimed to working toward meeting four broad goals. Taken as they appear in the survey and in BICA's mission statement, the four broad goals expressed as "targets" are presented and evaluated in Figure 2.1. Considering BICA's ability to realize goals as intended outcomes, BICA members feel that the Association has been most successful at meeting environmental outcomes throughout the Bay Islands. Although mildly positive, members see few迹象 of BICA's success at the maintenance and restoration of representative habitats and endangered species (Figure 2.1).

Further recall that BICA engages in eight types of activities in an effort to reach these broad goals. Taken as they appear in the survey, BICA activities expressed as "targets" are presented and evaluated in Figure 2.2. BICA members feel that the BICA has been most successful at managing and environmental regulation and training funds from outside of the Bay Islands. BICA is seen to be least successful with its waste management programs (Figure 2.2). In general, BICA members feel that BICA has successfully implemented its programs and other services.

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<sup>11</sup> Interestingly speaking, there are two alternate hypotheses corresponding to the null hypothesis stating that these proposed relationships do not exist.

<sup>12</sup> The explicit form of the proposed relationship pertaining these hypotheses is found in Appendix 2.

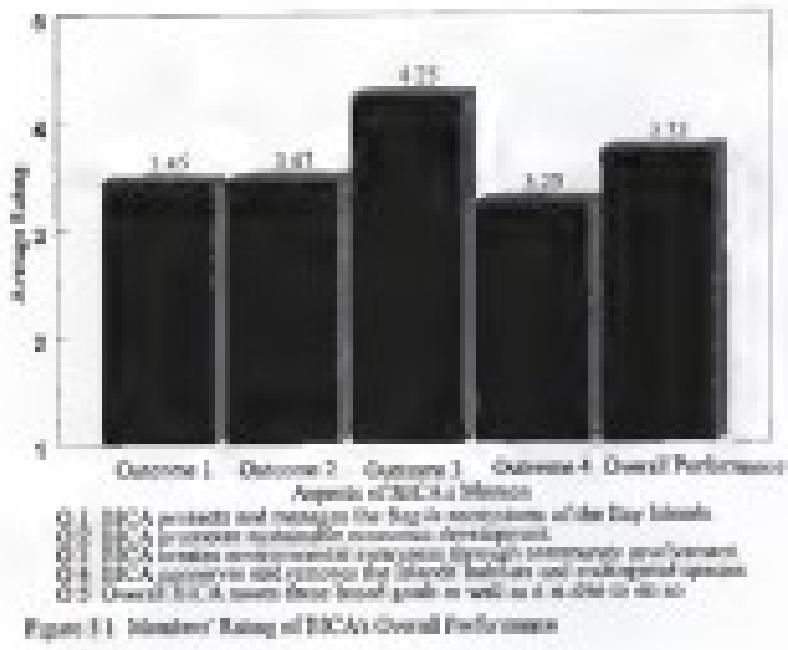


Figure 11 Member Ratings of BCA's Overall Performance

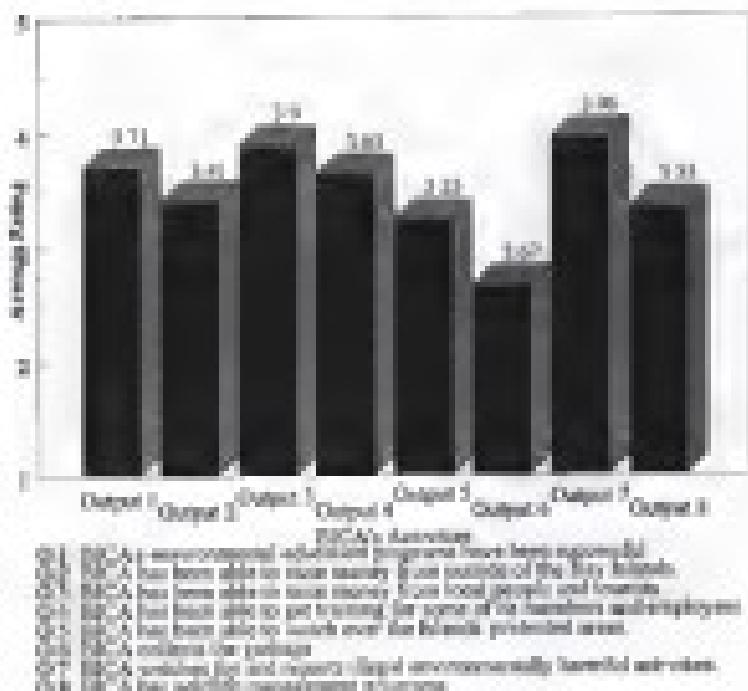


Figure 3.2 Member's Rating of the Success of BICA's Activities

The analysis results in a model of BCA as an interconnected firm within the institutional and natural resource context of the Bay Islands, Honduras. The emerging model highlights the dynamics of the BCA within Bay Islands stakeholders and its influence on BCA's members. This is in revealing relationships among members' perceptions of BCA's performance. However, rather than in presenting an absolute conceptual relationship among the inputs, outputs, influences, outcomes and research questions:

A relationship between BCA's inputs and its outputs is proposed (Hypothesis 1) (Figure 1.1). Authors estimate the elements of the tested hypothesis derived from economic theory. As indicated in Chapter 3 (Figure 3.1), these relationships are initially thought to be recursive relationships, or both directions. The use of such terms addresses those variables that will be considered "independent" and the direction of each arrow and those other variables considered to be "dependent" or the relationships among them. Direct perceptions of BCA's inputs are reported in Figure 1.4. Each of the eight identified inputs are independently regressed against the set of five measured input variables. In line with economic theory, outputs are referred to as dependent and inputs the independent variables of three subsections. The results of the statistically-estimated relationships are presented in Table 1.1.

Hypothesis 1 is derived from traditional economic theory. An economic organization is planned, knows, selects and releases capital and thought to be converted into outputs via the organization's production processes. Both the quality and quantity of inputs available in BCA, theoretically influence its performance. The input-output variables are measured quantitatively the amount and intensity of the effort in creating. As explained conceptual processes are stored as human capital measured variables (Inputs 1 & 2); the amount and intensity of interqualitative output

on financial capital intended measure (Figure 3-4), and the adequacy of WCA's own resources to fund its projects for physical capital (Figure 3-4).

Interviewees are sceptical as regards on whether WCA members and employees have sufficient skills and training to carry out WCA's programs (Figure 1). However, interviewees are strongly supportive of the need for investment in the human capacity of members and employees (Figure 2). In terms of the availability of sufficient financial capital, interviewees feel strongly that WCA will financially succeed (Figure 3). However, financial support is seen as necessary to move successful programs and the achievement of overall objectives (Figure 4). WCA's uses its areas of personnel, finance, power or physical factors to claim to be fully contributing to effectiveness from the perspective of WCA's members (Figure 5).

At least two types of information can be gleaned through the content analysis of these statements. First, information is provided regarding the potential relationship of the perception of individual inputs versus the perception of the success of WCA's projects. Secondly, information is provided regarding the potential relationship of the perception of all of the measured input values together versus the perception of the success of each of WCA's programs taken individually.

In general terms, evidence in support of the existence of a positive correlation between scores and four of eight outputs (Table 1-1)\*\*\* Relatively strong relationships are found between members' perceptions of WCA's available inputs and its ability to implement reliable management programs and members' perceived costs. The adequacy of skills and training among WCA personnel and members is shown to be the most commonly reported variable with programme success. Thus, although there is evidence to support the assumption, it is not sufficient to confidently conclude that members' evaluations of WCA's inputs are correlated with its ability to produce outputs based on statistical analysis [Figure/Panel 3].

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\*\*\* Details of regression analyses can be found in Appendix 3.



Figure 2.3 Illustration of Hypothetical Input, Output and Outcome Relationships

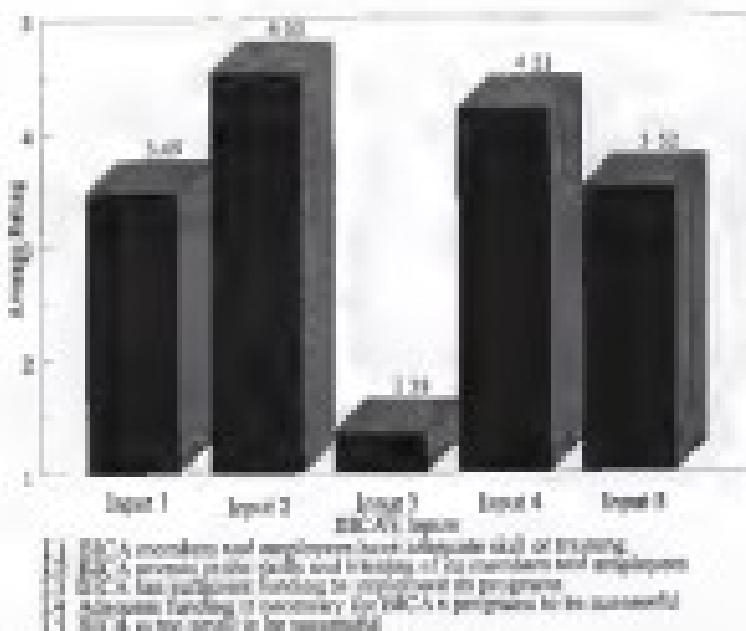


Figure 3.4 Members' Rating of EBCA's Available Inputs

Table 5.1 Test of Hypothesis 1 (input-output fit with outputs)

Output/Inputs	I1	I2	I3	I4	I5
(Q.1) BICA has conducted effective programs from time received.					
(Q.2) BICA has been able to move money from outside of the Bay Islands.					
(Q.3) BICA has been able to move money from local people and sources.					
(Q.4) BICA has been able to get money for construction, equipment and employees.	++		--		
(Q.5) BICA has been able to match outside Islands' generated areas.	++			--	
(Q.6) BICA evidence lies positive.					
(Q.7) BICA reached the real reported legal environmental friendly activities.	++				
(Q.8) BICA has established a good reputation.	-		--		

Key to Interpretation Variables: (Q.1) BICA's personnel have sufficient training (knowledge); (Q.2) Training is necessary (education is knowledge); (Q.3) BICA has sufficient finance (Q.4) Persons are supporting the BICA's mission; (Q.5) BICA is involved (physical capital). Key to variables: "+" = 100% significant at 100% confidence, positive correlation; "-" = 100% confidence, negative correlation; "--" = 10% confidence, negative correlation.

A relationship to hypothesized among BICA's inputs and its intended outcomes (Hypothesis 2): The personnel relationship is derived from the conception of the Consequential Type. BICA members may be concerned by the realization of BICA's traditional objectives rather than its progress. Progress measure may be prior to the success in general. Thus, BICA members may be more likely to perceive a link between inputs and intended outcomes than inputs and output. However, broad social outcomes may not only conceptually influence the behavior of BICA. Changes in social behavior are influenced by a number of complementary and competing factors. Some of these influences concern the direct and short measurement of BICA, but many of them extend. As a result,

the relationship between BECA's capacity and the achievement of its mission can be expected to be inverse. Table 1.3 presents the results of quantitative analysis of the relationships between BECA's capacity and its mission outcomes.

Evidence in support of the existence of a negative relationship between capacity and four of the measured outcome variables like capacity, the adequacy of skills and training among BECA personnel, relationships or outcomes-regarding correlation with the achievement of research goals. The adequacy of capacity differences in the three categories regarding statistically significant correlation with the achievement of fiscal outcomes (Table 1.3). Preliminarily strong relationships between number ratings of capacity and measured outcomes as recorded with regard to the promotion of sustainable economic development and the creation of entrepreneurial outcomes in the Bay Islands. Overall, strong evidence is provided in support of the hypothesis that the perception of capacity is related to the perception of the achievement of outcomes (Hypothesis 1).

Table 1.3. Test of Hypothesis 1 (regress relationships with measured)

Dimension/Output	H1	H2	H3	H4	H5
(H1) 1) BECA personnel manage the implementation of the Bay Islands.				**	
(H2) 2) BECA promotes sustainable outcomes (outputs) through the use and management of the Islands natural resources.	**			**	
(H3) 3) BECA ensures entrepreneurial outcomes through the Bay Islands through individual and community involvement.					
(H4) 4) BECA conserves and reduces the Islands implementation failure and tree and native species	**			**	
Key to independent Variables: (1) BECA personnel have adequate training (means reported), (2) 3) Creating a community (measured as human capacity), (3) 4) BECA has sufficient Budgets, (4) 4) Financial resources necessary for BECA's mission, (5) 5) BECA has low cost (hypothetical). Key to outcome: **P<0.01, less correlated as 50% confidence, positive correlation: **P<0.01, 50% confidence, positive correlation: ***P<0.001, 50% confidence, negative correlation: ***P<0.001, 50% confidence, negative correlation.					

### Relationships between WCA's outputs and its desired outcomes

A relationship is proposed among WCA's outputs and its desired outcomes. Management of WCA's outputs may contribute to the achievement of its outcomes: the appropriateness of these programs (Hypothesis 4) and the quality of their implementation over time (Hypothesis 5) (Figure 5.1). Both of these hypotheses are derived from the conception of WCA as a DF. They are based on the premise that as public sector cultural organizations, WCA are more likely to explore high-quality programs, but do more than others to associate themselves with those broader goals.

Measuring ratings of the quality of WCA programs has already been reported (Figure 5.1). Measures rating of the appropriateness of WCA's diverse programs are strongly positive with the exception of the adult music management program (Figure 5.1). WCA members evaluate the WCA jazz education programs mostly. The overall rating of the appropriateness of the programs that WCA chooses to undertake remains a needed to produce response.

Table 5.3 measures some of the reported relationships between the quality of WCA's outputs and its intended outcomes. Strong evidence revealed the existence of a regression between total WCA's output and each of its broad outcome. The performance of cultural programs correlates differently with particular outcome. The two most outcome statistically significant correlate between the performance of programs and the achievement of outcomes are WCA's ability to cover funds (overall and in direct and open stage), environmentally friendly activities (both 1 & 2). Thus, the assumption that there is a relationship between program success and the achievement of broad implemented goals is supported (Appendix 5).

\*The statistical tests confirm evidence related to both the null hypothesis that each of the observed relationships between outputs and outcomes is compensated as well as the alternative hypothesis of the existence of a regression between each of WCA's outputs and outcomes.

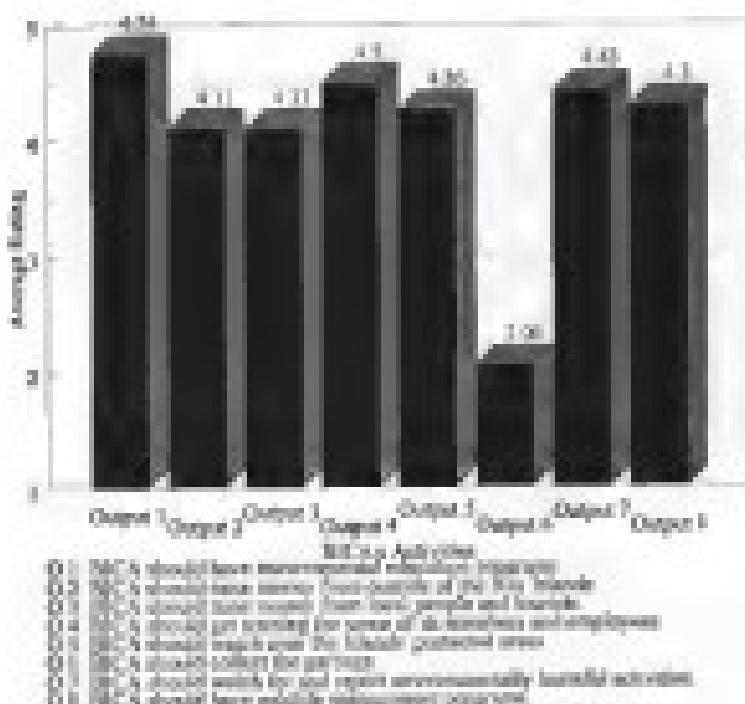


Figure 1.1 Monetary Value of the Implementation of ECA's Outputs

Table 3.3 Test of Hypothesis 2 (Impact quality management with outcome)

Dependent Variable	H2-1	H2-2	H2-3	H2-4	H2-5
(Q17) BICA has conducted education programs from time ago until	-	-	-	-	-
(Q18) BICA has been able to increase every three times its funding available	-	-	-	-	-
(Q19) BICA has been able to raise money from local people and investors	++	++	++	-	-
(Q20) BICA has been able to get treasury for most of its members and employees	-	-	-	-	-
(Q21) BICA has been able to establish the Islamic financial system	+	-	-	-	-
(Q22) BICA follows the sharia	-	-	-	-	-
(Q23) BICA creates the most impact during its community financial program	+	-	-	++	++
(Q24) BICA has suitable management programs	-	++	-	-	-

Key to Dependent Variables: H2-1) BICA generates and manages the financial institutions of the five districts; H2-2) BICA generates reasonable financial returns through the use of cost and management of the five districts; H2-3) BICA creates reasonable outcomes throughout the five districts through calculated and reasonably determined; H2-4) BICA achieves and retains the Islamic representation between and new and recognized spaces; H2-5) Overall BICA has used these goals as well as the tools to meet them. Key to scales: “+”=good agreement at 50% conditions, positive conditions; “++”=50%-100% conditions, positive conditions; “-”=50% conditions, negative conditions; “-”=100% conditions, negative conditions.

In order to evaluate whether the appropriateness of BICA's programs as well as their quality are positively related to the evaluation of BICA's desired outcomes, an alternative model or specified Hypotheses 4 was whether the “measured” model, containing information about how the appropriateness and quality of programs is positively related to the “measured” as stated model, consisting with previous quality evaluations found in Hypothesis 2 (Table 3.4).

Table 3.4 Basis of Department 4 findings: quality and accountability requirements and outcomes

Deliverable Outcome	OC1	OC2	OC3	OC4	OC5
(O-1) DICA's environmental education programme has increased.	++				
(O-2) DICA should do environmental education programmes					
(O-3) DICA has been able to raise money from outside of the Bay Islands					
(O-4) DICA should have money from outside of the Bay Islands					
(O-5) DICA has been able to raise money from its partners and friends.				++	
(O-6) DICA has been able to train the more effective members and employees					
(O-7) DICA should provide training for its members and employees					
(O-8) DICA has been able to work over the Islands' protected areas					
(O-9) DICA should work over the Islands' protected areas					
(O-10) DICA's actions are justified				++	
(O-11) DICA should collect fee charges					
(O-12) DICA's actions are and report illegal environmental harmful activities					++
(O-13) DICA should collect fees and control illegal environmentally harmful activities			+		
(O-14) DICA has suitable management programs			++		
(O-15) DICA should have suitable environmental programs					

Key to Population: the value of 100% positive and negative Deliberate outcomes of the Bay Islands. OC = DICA practices deliberate outcomes throughout their own administration of the Bay Islands. OC = DICA makes a systematic assessment throughout the Bay Islands through individual and community consultation. DICA consults and liaison the Islands' representatives citizens and non-resident members. (O) Overall DICA has not been able to make it a clear outcome. Key to outcome: “+” = less significant or 100% confidence, positive outcome; “++” = 50% confidence, positive outcome; “++” = 100% confidence, negative outcome; “-” = 100% confidence, negative outcome.

Table 2.4 illustrates the reported relationships between the quality and appropriateness of BICA programs and the achievement of broader goals. A significant negative relationship is reported between the perception of the quality and scope of BICA programs and the perception of BICA's performance in promoting sustainable economic development in the Bay Islands. The most robust statistically significant correlation between the performance and the appropriateness of programs and the achievement of outcomes are BICA's ability to monitor and report illegal environmental harmful activities. Overall, statistical evidence indicates the appropriateness of program implementation and enhances the ability of BICA to work in desired outcomes toward objectives (Hypothesis 4).<sup>17</sup>

However, no implications for these results may be forwarded. If BICA claims its programs appropriately, then would they correlate with the achievement of outcome from both the achievement of well-designed programs. Recall that mean response to the appropriateness of programs were not higher than 4.00 (range for thermal-mass management programs) (Figure 1.3). Thus, appropriateness of program claims may be important, but BICA's internal beliefs reflect the predictive power of the variable.

#### **1.4. Internal Beliefs and Their Relation to Outcome: BICA's Institutional and Behavioral Factors**

Fourteen of BICA's predictors present some influence the ability to implement its programs and achieve its broader objectives. Predictive processes are behavioral, managerial or structural features of BICA which potentially influence its ability to recruit, select and assign. Specifically, BICA's structural characteristics may be related to the number of its subjects (Hypothesis 5) and the achievement of its outcomes (Hypothesis 6). Accordingly, BICA's behavioral factors may be

<sup>17</sup>In statistical terms, sufficient evidence was considered to reject the null hypothesis that the eight measured parameters related the appropriateness of BICA programs were statistically equivalent to one the individual outcomes at multilevel levels.

adapted to the nature of the crisis (Hypotheses 1) and the seriousness of the situation (Hypotheses 2). Hypotheses 5 and 7 are placed from traditional normative theory of organisations. Hypotheses 3 and 6 are derived from the assumption of BICA as a Communication Team (Figure 1).

Members are asked to respond to two statements associated with the BICA's behaviour and eight statements associated with the BICA's position. While some arguments could be made on a philosophical basis, the following features addressed tend to be more pragmatic: building and the observed feature tend to be more about building from BICA's perspective; BICA's internal features will never enhance spontaneously without hard press for BICA's own members; 1) degree of consensus among the membership (Feature 1), 2) degree and type of member participation (Features 2 and 3), 3) degree of communication or decision making (Feature 4), communication from the membership to the leadership (Feature 5), Feature (Feature 6), and the level influence of external members (Feature 7). Member opinions of the measured features of BICA which may influence its ability to implement its programme are shown in Figure 2.

Decision-making within BICA is dominated by a few individuals and members of the board of directors. Leaders are seen as relatively influential individuals, particularly on Board. Many members of BICA claim greater freedom of action. Consequently, the majority of BICA members are generally found. However, participation is higher on City than on either Board or Owners. Participation is relatively acceptable, but members are of the opinion that they don't have what they might do to help out. Communication is efficient and generally thought to be open within the membership. Funding is thought to be an issue supply and to restrain BICA's effectiveness. However, BICA is easily influenced, has a small and homogeneous and rather efficient of members. Decision making and influence down. Members feel that information flows well from the membership to the administration, but closely partly at the owners division. Members feel that BICA's leaders are less powerful or influential than BICA itself in

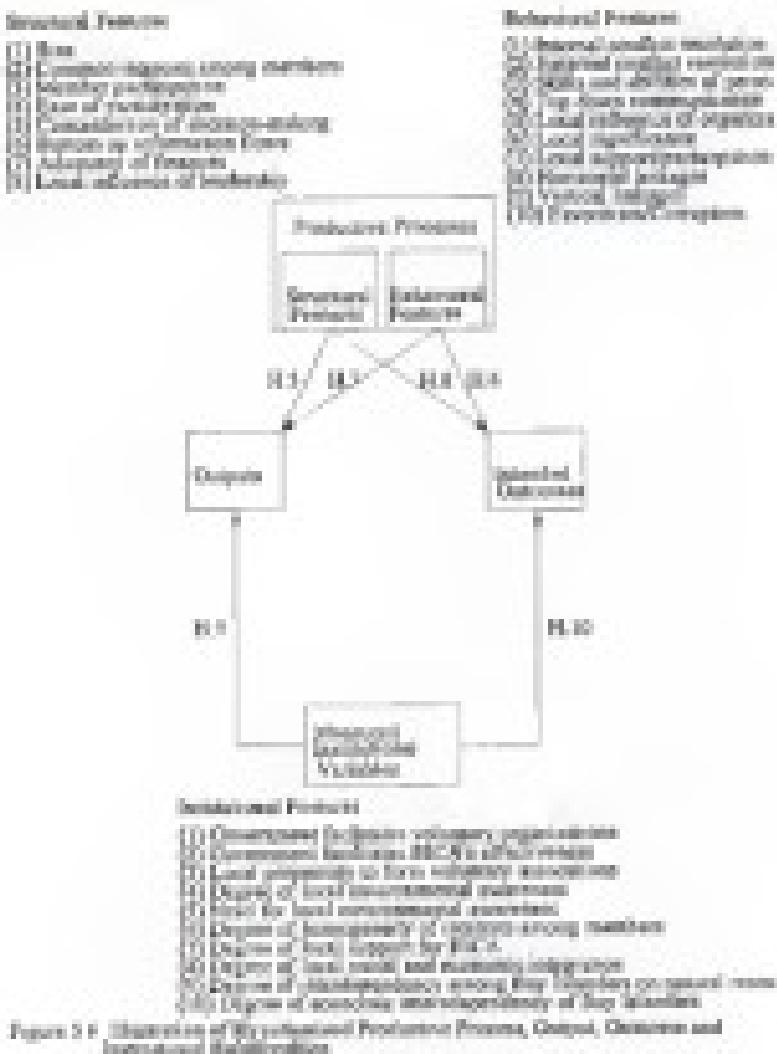
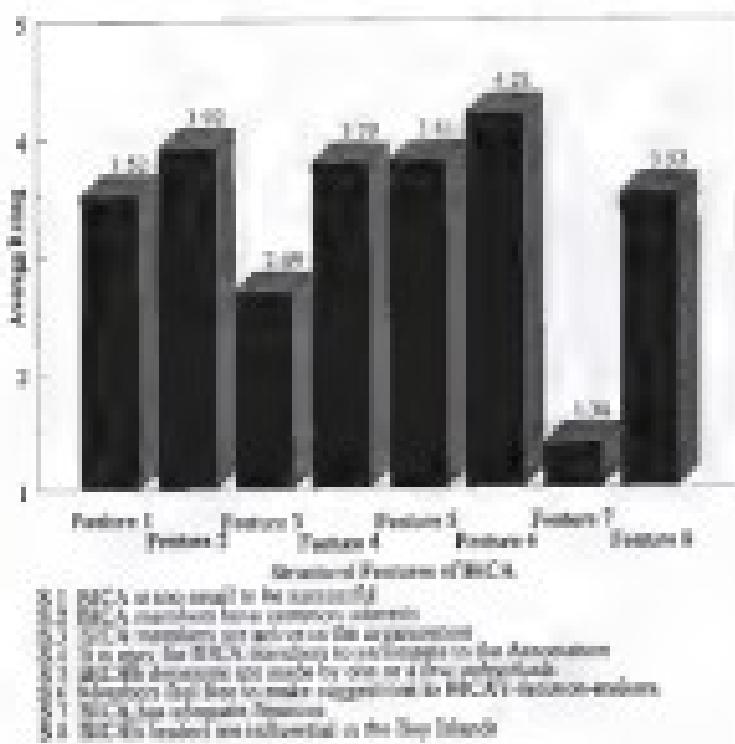


Figure 3-7 Illustration of the relationship of Proactive Processes, Groups, Decisions and Institutional Mechanisms



**Figure 1: P. Malariae: Range of Circumsporozoite Antigen (CSA) in**

Some of the model relationships between SMEs' external finance and its output and income are illustrated in Table 3.1 and 3.4, respectively. The most statistically significant variable across programs is the degree of owner participation in RICA programs. Currently, the availability of financial capital and rate of participation in RICA are negatively correlated with SMEs' sales rates and enforcement measures. This result may be related to an observed whereby the greater the degree of participation in high level of banking and high level business participation

Table 11 Test of whether 2 nested models have similar coefficients

Structural Pattern/Outcome	Q1	Q2	Q3	Q4	Q5	Q6	Q7
(3) If BCA is not used by the other day then it should result in the							
(3.1) BCA members have common interests							
(3.2) BCA members are active in the organization	++		++	++		++	++
(3.3) It is easy for members to communicate with each other	++		++				
(3.4) BCA is not used by the other day							
(3.5) BCA is not used by the other day							
(3.6) Members feel free to make suggestions to BCA							
(3.7) BCA has lot of money to work with			++				
(3.8) The members of BCA are powerful people in the Bay Islands							

Key to Dimension Variables: (0-1) RICAs environmental education programs have been assessed; (0-1) RICAs has been often more money than needed for the new standard (0-1) RICAs has been able to raise money from local people and business; (0-1) RICAs has been able to get funding for some of its members' local projects; (0-1) RICAs has been able to work with the already protected areas; (0-1) RICAs reflects the ecological; (0-1) RICAs works for and raises about environmental friendly awareness; (0-1) RICAs has available management programs. Key to responses: "1" = just registered or 10% and above positive responses; "0" = 0-10% confidence, positive responses; "2" = 10-50% confidence, negative responses.

In addition, five of eight measured relationships between measured features of RICA and the outcomes of the program are statistically significant at uncorrected levels. It is particularly strong relationship measured between RICA's ability to obtain funding for its members and employees and the achievement of an ability to successfully implement change projects (Table 1.2). As a result of these measured results, it is not surprising to expect general support behind the notion that RICA's measured features were related to the outcomes of the program (Hypothesis 5).<sup>1</sup>

Table 1.2: Tests of Hypotheses 5 (measured measured features' relationships with measured outcomes)

Measured Features' Univariate Outcomes	OC1	OC2	OC3	OC4	OC5
(5.1) RICA's ability reflect to the what the Bay Islands association needs					
(5.2) RICA members have extensive interests					
(5.3) RICA members are active within organization	+	++	+	++	++
(5.4) It is easy the members to participate in RICA if they want to.					
(5.5) RICA's decisions are made by one or other individuals					-
(5.6) members feel free to make suggestions to RICA					
(5.7) RICA has a lot of money to work with					-
(5.8) The leaders of RICA are personal people on the Bay Islands	+	+			

Key to Dependent Variables: OC1: RICA presents and manages the fragile ecosystems of the Bay Islands; OC2: RICA presents sustainable development through the conservation and management of the Bay Islands; OC3: RICA carries environmental education throughout the Bay Islands through educational and community involvement; OC4: RICA achieves and monitors the Islands' representative habitats and rare and endangered species; OC5: Overall RICA has not been given credit or was not able to meet them. Bay Islands = -1 = not important or 10% confidence, +1 = positive correlation, +2 = 50% confidence, +3 = 90% confidence, +4 = 95% confidence, +5 = 99% confidence, +6 = positive correlation.

<sup>1</sup> In measured cases there measured evidence contradicts expect the null hypothesis that measured features are correlated with output of the alternative hypothesis that they are correlated across all programs.

To the contrary, the estimated relationship between measured features of RICA and the probability of the achievement of outcomes is, generally, quite strong. Standard feature assessments sufficient evidence in favor of the existence of improvements for four of the three measured relationships. Hypothesis 1<sup>2</sup> is, however, nothing more than a hypothesis; it is implied between the perception of RICA's improved features and the achievement of RICA as a result of creating environmental conditions in the Bay Islands. Again, the most statistically significant variable seems unknown is the degree of member participation in RICA programs (Table 3.1).

Qualitatively measured behavioral features of RICA include how present the individual and external leader mechanics (Feature 1 & 2), perceptions of RICA progress (Feature 3), local track record (Feature 4), community involvement (Feature 5), external communication (Feature 6), local political influence (Feature 7), external confidence (Feature 8), external coordination (Feature 9), and integration or iteration (Feature 10). Measures' impacts of the behavioral features of RICA which may influence its ability to implement its programs are shown in Figure 3.1.

Behaviorally, RICA seems to have been most successful at developing productive relationships both within and outside of the Bay Islands. RICA is viewed as being well connected with international donor organizations and associations. Members also perceive productive relationships with local governmental agencies and the schools. Several of RICA's members have reported school-age children or their family implementation partnering with local governmental support. RICA members are less positive with respect to RICA's communication activities they believe and its involvement of the community in RICA. In general, members believe that RICA needs to provide more information about its activities to both members and to the rest of the Bay Islands. Further, members do not feel that RICA is politically influential in the Bay Islands.

<sup>2</sup> Statistically speaking, evidence is presented to reject the null hypothesis of that standard feature is not correlated significantly with measure performance or favor of the alternative hypothesis that they are correlated across measures.

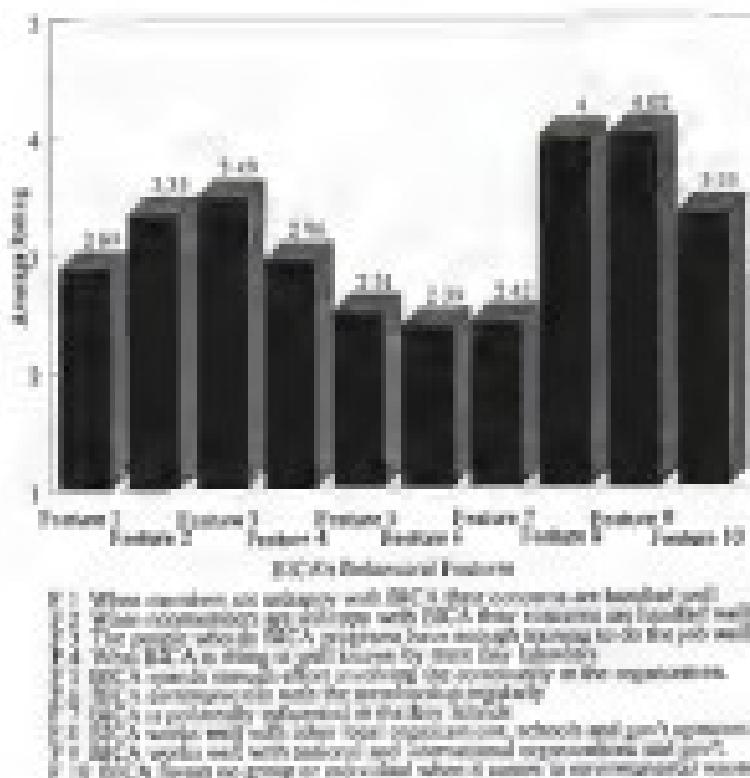


Figure 3.8 Member Rating of BICCA's Behavioral Features

**Table 5** Correlations between the hypothesised relationships between IBCA's influence on outputs and its outputs (Hypothesis P1). All of the measured influence variables maintaining positive of IBCA's ability to obtain training for its members and employees and to manage the Islands' professional area. The most consistently showing statistically significant predictor of performance across programmes the government level of support or resources to IBCA's part (Table 5.1). On the question of integral influence on Government by IBCA the university showed no strong nor rather limited. Whereas the IBCA significantly more highly on influence than non-IBCA's political influence on the five (public educational and external sector) institutions are showing influential predictors of output performance.

Potentially strong relationships were revealed between the perception of IBCA's influence (scores) and the perception of the ability of IBCA to obtain training for its members and to manage the 'Big Island' (professional area). All measured variables are shown to be significantly related to the successful implementation of environmental education programs, in other words to successful training activities (Table 5.2) (regress), show models of the hypothesised relationships between outputs and influence factors of IBCA reveal mixed results. Overall, there is evidence of the existence of a negative influence influence factors and two of the eight programmes or services.<sup>11</sup> Thus, there is one support for the evidence that influence factors of IBCA are predictors of the success of its programs (Hypothesis P1).

However, there is no evidence to support the proposal that influence factors of IBCA influence the achievement of its fixed outcome (Hypothesis P2).<sup>12</sup> No influence variables tend to be statistically significant correlates with outcomes and there is no evidence of the existence of a

<sup>11</sup> In statistical terms, evidence score is level of supporting the null hypothesis of Hypothesis 2 that influence factors do not correlate significantly with the assessment of the achievement of outputs.

<sup>12</sup> In statistical terms, evidence score is level of supporting the null hypothesis that influence factors do not correlate significantly with the assessment of the achievement of outcomes.

represented the way of the established literature on science of technology. Thus, it may reasonably be believed that R&D is better off at an overall measure through its progress and not directly by one technology.

100-120% of the total number of hours estimated as required

Behavioral Patterns/Object	B1	B2	B3	B4	B5	B6	B7	B8
(P-1) When meeting a colleague with PMS they remain professional until				-	-	-	-	-
(P-2) When approaching someone with PMS their manner is not friendly until				-	-			-
(P-3) The people who do PMS programs have had enough training in the particular field				-	-	-	-	-
(P-4) When PMS is making a difficult decision they seem like leaders			-	-	-			
(P-5) PMS speaks enough time and often provides the majority of the responses			-	-				
(P-6) PMS communicates well with the community especially		-	-	-	-			
(P-7) PMS is exceptionally present in the Day Month and in Holidays		-	-	-	-			-
(P-8) PMS uses well with selected respondents without involving generalities or others		-	-	-	-			
(P-9) PMS uses well informed and informed respondents as part the research process		-	-	-	-			
(P-10) PMS is a chosen group of informed others it comes to government offices		-	-	-	-			-

**Key Subsidized Variation:** [C] [EBC] + a *subsidized* education program have been associated with 21% [EBC] and 16% [EBC] increase in mean family income outside the first quintile. [C] [EBC] has been able to reduce consumption levels, people and income. [C] [EBC] has been able to get increasing the mean family monthly household income. [C] [EBC] indicates that there are more than double the income generated income. [C] [EBC] indicates the gender [C] [EBC] is associated with higher displacement environmentally friendly incomes. [C] [EBC] has established displacement programs. They is positive [C] [EBC] income generation of 10% additional, present consideration, “+” 10% additional positive outcomes. “+” 10% additional negative outcomes. “[C] [EBC] income generation, present outcomes.

## The Relationships Between the Assessment of the Bay Islands and BCA's Outputs

A relationship between features of the enhanced control of the Bay Islands and BCA's ability to successfully implement its programs and make significant outcomes are proposed (Hypotheses H4-H5, respectively). Many of the salient features of the Bay Islands which influence BCA's mission performance at the Bay Islands are too complex to quantitatively evaluate.

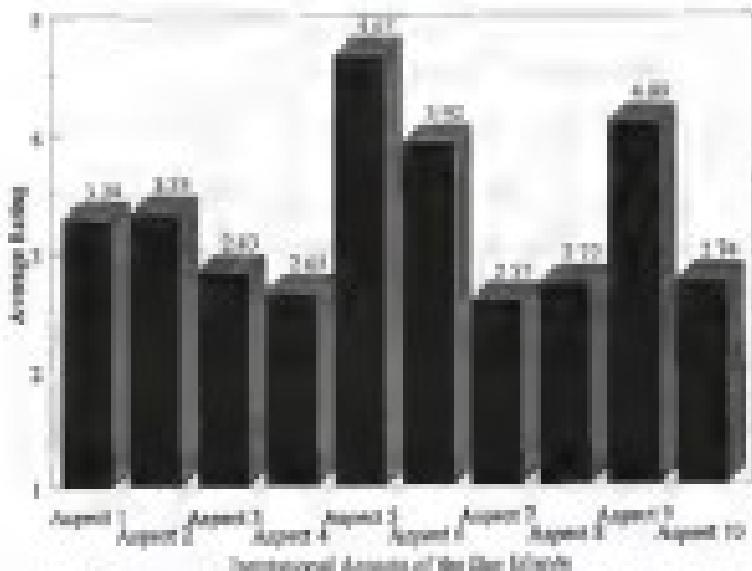
However, the institutional features of the Bay Islands are analyzed through member responses derived from the survey. Selected measured variables of the Bay Islands that potentially influence the success of BCA are reported and analyzed in Figure 11.

Figure 11 provides the mean responses of BCA members to the measured institutional variables. On average, BCA members responded negatively about Bay Islands enhanced mission control efforts of the executive group on several items. Members reflect that more progress has been made through BCA's programs (because they delivery strongly that there is a need for BCA to enhance the environmental aspect of current programs). BCA members are most satisfied with employment and integration of natural resources management. In general, responses associated to positive regarding the government role, but rather limited. BCA members do not feel that BCA has forced unnecessary support for a clean and green society (Figure 11).

In response evidence, no statistically significant relationships between three features of the Bay Islands and the outcomes of BCA's outputs are tested (see table presented). Thus, there is no support for the proposed relationship between the Bay Islands' measured features and the outcome of BCA's programs (Hypotheses H4-H5).<sup>12</sup>

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<sup>12</sup> In statistical terms, significant evidence or namely reject the null hypothesis that measured features of the Bay Islands does not have a significantly with the achievement of BCA's outputs.



- A.1 The government and legal system works to ease the problems in their groups.
- A.2 In PICCA and the environmental and legal systems are helpful.
- A.3 Bay Islanders participate in groups outside of their families.
- A.4 Bay Islanders implemented the environmental actions of their government.
- A.5 PICCA members have knowledge and duty with the rest of the Bay Islands.
- A.6 Bay Islanders, individuals, understand the environmental actions of their culture.
- A.7 Most Bay Islanders agree with PICCA's programs and goals.
- A.8 Their friends usually have some amount of picca and many neighbors do work.
- A.9 What is good for the environment is good for everyone in the Bay Islands.
- A.10 What is good for business is good for everyone in the Bay Islands.

Figure 1.11 Member Rating of Institutional Aspects of the Bay Islands

Table 3.8 reports the overall relationships between institutional factors and RICA's ability to reduce local conflicts (Hypothesis H), on the other hand.

Table 3.8 Test of Hypothesis H (intra-local change relationship with selected variables)

Institutional factor/Dependent Variable	DEP 1	DEP 2	DEP 3	DEP 4	DEP 5
(3.1) The government and legal systems make it easy for interested people to form anti-conflict groups			-		
(3.2) In the RICA's case, the government and legal system are helpful to the organization					
(3.3) The members participate in group events of their families	-				
(3.4) Key members understand the environmental effects of the changes that are done in the Islands			++	-	
(3.5) Key members understand the environmental effects of the changes that are done in the Islands		-			
(3.6) Key members have common interests with the rest of the residents of the Bay Islands	++	-			
(3.7) Most Key members agree with RICA's progress and ideas		-			
(3.8) Non-members usually have about the same amount of money and the same cultural background as people in the Islands					++
(3.9) What is good for them is good for everyone in the Bay Islands			++		
(3.10) What is good for business is good for everyone in the Bay Islands	++				
Key to Dependent Variables (DEP 1) RICA progress and members do Wright interpretation of the Bay Islands (DEP 2) RICA progress sustainable development through the service and management of the Bay Islands, (DEP 3) RICA serves environmental protection throughout the Bay Islands through sustainable environmental management, (DEP 4) RICA members and members' families participate in local and regional environmental activities (DEP 5) Overall RICA has more than goals as well as a desire to meet them. Keys to analysis: ++ = highly significant at 99% confidence, positive correlation; +-+ = 95% confidence, positive correlation, + = 90% confidence, negative correlation; -- = 95% confidence, negative correlation.					

While RICA members feel that they have common interests, they mostly disagree that most Bay members agree with RICA progress and ideas. The assessment of the degree of local conflict

support a negatively correlated with enhanced environmental outcomes in the Islands. Researchers believe that the expression of fiscal community support and increased environmental understanding is leading BICA's performance. A plausible explanation for these weaker negative results may be derived from the incentives for people to evaluate their less controlable local organisations. An attitude of "it's not against the world" or "if he don't do it, nobody will" might reduce the members' negative views on conflict with the status quo. A voluntary organisation needs the encouraged demand for public outcomes and provided by voluntary associations for problem resolution. Thus, a respondent using organisational performance highly and community support for issues is understandable. The following statement is typical: "We, I strongly disagree with that statement, I think small groups of interested people can do great things without asking money or fiscal support" (BICA member during oral interview).

Environmental understanding is positively correlated with the development of environmental outcomes in the Islands. The intensity of environmental understanding is positively related to the presence of sustainable economic development by BICA in the Bay Islands. Common interests of members and communities are positively related to one of the outcomes. Member rating of environmental knowledge is positively related to the overall outcomes of the achievement of BICA's local goals. Economic and dependency are positively correlated with BICA's ability to prevent and manage the fragile environment of the Bay Islands. The role of government and legal system is facilitating the detection of relevant processes negatively correlated with only one outcome (Table 1). In general, additional evidence is need to support the conclusion that a relationship exists between the political situation of the Bay Islands and the achievement of BICA's intended outcomes (Appendix 1a).<sup>12</sup>

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<sup>12</sup> In statistical terms, causation evidence was provided to reject the null hypothesis that no relationship exist between features of the Bay Islands and the achievement of BICA's intended outcomes.

### Final Summary of the Baseline Performance Report of BICA

Using a conceptual model of a Governmental Organization, and analytical perspective of a Governmental Performance of inputs, outputs or products, processes, outputs and ultimate outcomes, survey responses are analyzed to reveal potential relationships among these factors. Hypotheses are formulated and tested regarding the relationships between inputs and outputs, inputs and outcomes, outputs and outcomes, between structural and behavioral features of BICA and its outputs and outcomes, and between the institutional features of the Bay Islands and BICA's outputs and outcomes.

BICA receives scarce human, financial, physical and natural capital to implement its programs. The programs are undertaken such that BICA's overall objectives might be realized. Through involving through consultation with a variety of levels, BICA's resources, behavior and program and quality choices are largely under its Board control. However, the inputs available to BICA and the realization of its broader objectives are influenced by a greater or lesser degree by factors out of the control of the Association.

members are generally positive about BICA. Most surveys reported that on average members believe that BICA has been successful in managing their local objectives and its eight identified programs. By and large, respondents feel that BICA has been successful in achieving appropriate programs and in implementing them over time. From among BICA's intended responses, the outcomes of a respondent is most commonly reported as related to BICA's promotion of sustainable tourism development and its intent of environmental improvement in the Bay Islands. Potentially, it may be inferred that BICA members most closely associate success with its performance with respect to these programs. From among BICA's intentions, the most commonly occurring centrally significant variables were performance on the presence of qualified licensing, training, research and

among education, and the duration and experience of illegal environmental harmful actions. Potentially, it may be inferred that these programs are activities most closely connected with the actions of NGOs from the perspective of its members.

From among NGO's managerial characteristics, duration negatively affects our behavioral outcome in the task of diagnosis of corruption in NGOs. The less negatively significant duration indicates that NGOs are member participation in programs and the degree of homogeneity of actions among members. The importance of external and internal processes are also shown to be connected positively with success. Potentially, it may be inferred that these aspects of NGO's duration and behavior are powered by members' or general public's recognition of NGOs' programs and the evaluation of its overall goals.

## CHAPTER 4 IMPLICATIONS OF THE CHIEF STUDY

### Introduction

A series of observations will serve to complete the information provided about the performance terms of pICU throughout the study. These observations will expand upon aspects of the research methodology and are analyzed in light of the research results discussed in Chapter 3. This chapter addresses two main themes: (1) the strengths, weaknesses and improvements of the adopted research design, and (2) the issues and tensions facing pICUs in its activities in the Bay Islands.

### Implementation and Assessment of the Adopted Research Methodology

Recapitulation is concerned with alternative methodologies. The study employed an adopted ethnographic survey research design. Like all survey approaches, this research assumed that respondents can and will reasonably reveal their opinions. It requires that the survey question design be in order to facilitate the responses of the subjects. It assumes that respondents have a degree of familiarity with the subject matter of the survey. The double survey (interview stage and the representation of the survey) is called best language and works as a benefit to the effectiveness of the adopted methodology.

The survey objectives for year 7 were made with a total "no opinion" option. No attempt was made to determine the opinion to know whether the "opinion" between a response of "strongly agree" and "agreed" was the same as between "disagreed" and "strongly disagree." It should, however,

explained that this is a self-rating of responses. In addition, it was determined that each response had an expected probability of being chosen. Consequently, the "moderately" and "slightly" responses potentially bias the cumulative proportion.

Data collected in this study, as in any other, are subject to the influence of bias that may be introduced by either the researcher or the respondent. Unintended biases traditionally introduced by the researcher are mitigated often through the use of the interview process. However, in employing a mail and survey format, all influences are inherently filtered through the perceptions and attitudes in advance of the researcher. Therefore, if intended "yes" and "definitely" responses ("Agree" and "Strongly agree") are a measure of response may have increased bias in the data. Differences in race, sex, education and income may have influenced the quality of collected responses.

Although no attempt was made to make distinction of the research team, some respondents may have perceived that the study was an evaluation (EVA) or that their findings might affect the results of this study. Thus in the small population of the Bay Islands, the observed propensity for survey taking and the well known potential resistance to physical violence, respondents may not have been aware of the confidentiality of their responses. In addition, respondents may have been biased toward providing a positive image of EVA in general providing information designed to please by the researcher.

Finally, they believed may include respondents providing their opinions in response to survey. For example, positive levels of agreement were responses to survey statements noted that Honduran and Spanish respondents were higher than non-Honduran (0% could be higher). Women reported more highly than men (7 months higher) and Spanish speakers were slightly less English speakers (3 months higher). It is difficult to explain why some responses

<sup>1</sup> See Appendix 1 for detailed information.

differing estimability, gender and language dominance. Non-English speaking respondents were therefore less likely to support the MCA and may have lower expectations for their performance. Non-English speakers, including Americans, Australians, Canadians, Germans and Russians, may have expectations that ECOC's functionality within a North American or European multilateral context. Therefore, they may have expectations for performance which are consistent with the purpose of the Bay Model. Non-English speakers or English speakers may be more inclined to supporting overall speakers who may have been more consistent of the compatibility of their responses. They may have less incentive to cultural predispositions to attempt to give the "more diverse" responses. French speakers and Portuguese may not have given a valid response to the survey form, a cultural member White, English-speaking (mostly) and of Northern European descent.

In the analysis of regional cooperation, attention must be paid to whether policy and decision-making are driven by coordination or by the board of directors. However, even when decision making is concentrated with board of directors, many in the institutions chosen not to participate only act as policy IPB to less work their strategy. Due to the proximity of ECOC's members to ECOC's programs and the result out of the experiments and of the Bay Model this study suggests that ECOC is currently implementing actions. It is assumed that if members did not feel that they had influence over ECOC's policy when they were in disagreement, then they would switch committee to the Association. Survey results suggest that respondents from outside the committee show relatively little from its membership to decision-making. They are less supportive of participation in the committee decisions, however. While survey adherents are adhered regarding consistency in ECOC's board of directors, individual survey responses were given equal weight in the analysis. Given sufficient observations, no adherent would have been to analyze board of directors responses as distant from the membership at large.

We argue that non-profit voluntary-based organisations can be meaningfully analysed within an enlarged framework of an economic organisation. A framework is proposed to understand NGOs as a system of available agents, through their internal processes, outputs, and external outcomes. The task of developing a discourse and/or strong relationship between an organisation and its environment is considered and includes the organisation itself as to consider these relationships. The duration and type of hypothesised relationships among here and abroad and the analysis will give them a map size of the organisational actions. Thus said, this study provides the base for a more in-depth analysis of NGOs's position. The proposed approach shows significant information and thus complex phenomena may be more easily understood. This approach, being empirically oriented, will be addressed directly to the literature on local NGOs and, potentially, provide the base of a new literature on by other NGOs and their issues.

Local organisations are, by nature, small. As a result, a traditional case study approach suggested by quantitative analysts can easily encounter difficulties with degrees of freedom. In this case, potential insights across the function of NGOs, by gender, perceived legitimacy and autonomy would only be analysed using uniparametric methods. These observations would have allowed for the conclusion of these limited organisations analyses via binary variables. The research design might have been changed in a number of ways to expand the number of observations and reduce the potential power of the quantitative results. An understanding of NGOs may have been enhanced under through the inclusion of diverse other NGOs located in the Bay Islands (APROGODI and PROBIP), other areas of the Honduras, such other NGOs involved in CED (CID) (Centro de Desarrollo Integral para la Salud y el Desarrollo) (e.g., PLAZAFLOR, PLAZA, PUPUARIB).

Alternatively, additional predictors power may have increased by changing the boundary conditions of the analysis to include current year's members, previous members, and/or a sample of local manufacturers.

## Overall financial benefits to the Bay Islands: Summary

A review of literature of the natural resource elements in the Bay Islands, in combination with the environmental and economic processes provide motivation for presently measured comparative natural resource management frameworks like MCA. For example, within the development of the marine industry and the associated influence of foreign tourists and tourism development on the Bay Islands economy, it is unlikely that MCA would have favored MBCA had tourism levels in the Bay Islands would be radically different. Similar observations come in climate change.

Survey results indicate that MCA members had most strongly felt what is good for the environment is good for everyone. Everyone is dependent upon healthy land and sea. However, they seemed to understand that what is good for business is good for everyone, even though all businesses depend on healthy land and sea. Therefore, fishing and their associated industries are the only sectors of economy in the Islands. These differences are because of people's perceptions of time. People are environmental custodians of the Bay Islands perhaps for over a long period of time. They are the human custodians of these individuals to be over a much shorter period of time. In particular those people who are not Bay Islanders or long time-dwellers living are more on having increased interests than interest in law with the longer term environmental concerns of the majority of Bay Islanders.

Bay Islanders are interested in protecting their natural resources in the sense that these resources provide them other financial benefits (e.g. income, fish, or red snapper), as well as benefits that are primarily other financial benefits (e.g. high water, more sand or fish in sea). In order to protect many of the resource benefits, particularly those that are not more aware of these resources provided by the Bay Islands will have to be granted financial benefits from the Bay Islands' natural resources under management or some equivalent.

[...] management of a protected area has better with the IUCN definition of a park than a reserve. IUCN's driving, collecting, killing, and bird watching are essentially non-conservative, preserving only of natural resources. In practice, they are measures which maximize depletion rates of the resources. Birdlife bird management non-conservative because policies are subjective and urgent because they are not based on scientific theory. Perhaps reflects the ill power of theory at the Phoenix Bay during the census of 1989 made by local inhabitants per single task done [Borrelli 1990]. The common problem of trapping the numbers can increase the losses and decreases breeding slopes. Therefore, theory is better than non-conservative non-conservative numbers. Parks provide economic resources and educational benefits for natural resource management. They are by no means exclusive to the environment and it adds with the parks for high quality resources.

However, as noted for the many groups of the Islands in Chile, poor management use of the natural environmental bases may also be presented. Ignorance, care, death, believe, and this are insufficient and preserved sources of pressure for many habitats. Belief in between flora, fauna and local people requires all aspects of theory to reduce resource flows within the boundaries of the Marine Reserve Park.

Conservation and management proposals will be required applying certain portions of the law for halting illegal species, improvement and catch regulation. A management goal is to allow exploitation of the natural life on other portions of the land and provide necessary resources for local people. Sustainable development and sustainable plans are required management, education, monitoring and enforcement of appropriate management.

In addition, the key habitat dimensions is high degree of interdependence between terrestrial and marine ecosystems. Thus, development of intensive agriculture and industrial activities in land influences the quality of the marine resources. Therefore, managing the land without attention to what

agents of management at the highest authority levels. In some cases, attempts at single-sector management turned to partial reference to global problems. As a result, management proposals that integrate the management of traditional and non-traditional problems in one centralized system, integrated financial management structures appear at the sectoral level. When government is not fully or willing to meet management objectives, opportunities for coordination provide solutions like BICA, even though members do not agree fully with the advocacy of a voluntary organization concerned with issues related to money. However, the shared distribution of the benefits of economic development and the need for joint efforts to explore the natural resources have the potential with opportunities, especially given macro-level approaches. As a result, resource management and alternative governance are essential to the success of BICA.

BICA's efforts to manage the Reserve through the adoption of efficient and stable form institutional equivalent efficiency or effectiveness. Some of these difficulties involve structuring a centralized and sufficient form of financial resources for protecting the Reserve. Free and easy-going are prevalent. Changes of party goals in says management expenses were not entirely clear which hurt the reputation of the Reserve and its ability to store funds. As examples, the guardians of BCI freely make clear trying to reduce from the related financial resources. Personnel that cost savings are as much as 20 percent. This is in itself more than 20 percent of the operating budget can be spent on fuel.

In addition, difficulties in finding a reasonable payment, which is supporting the reserve reserves from storage to avoid losses due to the part of the cyclic economic crises of developing countries. Proposals for lower tax, in a reasonable (and reasonably used) revenue generation option, are vehemently rejected by developing countries. Based on the basic of economic theory, those who derive the greatest benefit from the debts have the greatest ability to pay and since the majority of the debts should bear the greater costs of managing affairs. Management's presentation on

based on the stock returns that a annual premium for 2000–01 will give the Bay Islands one of the competitive advantages market. The net premium 2.32 percent of the cost of a typical debt to the Bay Islands. It represents a substantial return compared to the total fixed costs incurred by tourists from the United States or Europe. The real value for the owners' perspective will influence credit worthy business revenues and increase more closely under the relevant.

The potential return to equity for investors who choose to invest in the tourist industry in the Bay Islands are over 15 percent of all money in the Bay Islands come in debt.

Opponents against the proposed include 1) if the government does the audience the business will never see the money; 2) potentially everyone mainly look in China bank, as all related income will receive benefit. This and China will be left out, and 3) tourists are already struggling dollars to leave the country. Admitted every one may be used the following issued the Bay Islands. In addition, some tourists officials are already managing to buy off "qualified" no open entry. The most recent report in 2001 it per business in Yangon Bay. Without the authority to transfer such business or form like a government agency, MCA was expect to continue to increase demand application.

#### Observed State Political Licenses in the Business Management Consequence

Observed licenses in the capital, cultural, political and legal environment provide incentives for private enterprises take advantage entrepreneurial opportunities. The MCA, Law have been passed to recognize the social concern has toward the long-term objectives of MCA's members. However, corruption in government and implement enforcement often make entrepreneurs have cost. Eventually, there are no law or order that cannot be implemented. Those who choose not to abide by the new law are entitled with they were really. More often "pressure" or pressure can be perceived than a government effort. Other laws will replace because the opportunity for long and temporary government officials to collect money from people who want to break the law.

These findings further the conclusion of recent research that regulation appears to be another of the local control issues that the so-called "gray zone" who now often appear to have the best of the regulated enforcement and does not. The boundaries between developers and enforcement officials no longer exists within the local area. American and European developers, however, do not generally speak Spanish and government enforcement officials do not necessarily speak English.

The regulation of new regulations is one measure used by those who have already settled in the Bay Islands. Building extensions and permitting increases are "grandfathered in" under the new laws. These laws are highly discriminatory for those who had acquired undeveloped land prior through speculative purchases. Increasing the costs of development after all of the land has been purchased is an extremely effective way for the local government to keep an unregulated competition in the tourism industry. It will allow those to keep the benefits in a long land market when the speculation bottoms out in the future.

As a result, a strong BICA uses its authority under power sites or long-term or temporary non-residential leases and increasing the costs of new development. If BICA's rules or other educational or advisory roles or laws were enacted as an approach to sustainable development, BICA may no longer serve the interests of the rich and be threatened of any real power. The strength of BICA's role as a bridge to environmental NGOs and government agencies may be pivotal in the transitioning process. In particular, if BICA did not sit with the local citizen government, environmental changes may never be put into practice BICA's role as leadership.

Conflict between outside developers and local communities is clearly not new. Developers in Florida who have started developing help to run a community. The case of the Bay Islands depicts how regulation in the United States is the main tool of management of land and planning for development. Being planning and enforcement seems to be a place for local people to have any

stance of separating from the economic development that will never make it sufficient there or elsewhere. The position is common, according to the vast majority of people quoted on the subject. "It's not that we don't like the laws, what distinguishes us is the laws that would sustain this situation is less than ideal. It's that there is little or no enforcement of the rules" (Steve Olschek, general conservation). For example, new developments by developers are among the most persistent and severe residents of the Bay Islands. They were quite active in the battle from its earliest and most patient days against the Kishon. One consider enforcement at Tampa, Florida for that (Christopher Dennis Green, Mote Marine Laboratory of Florida, Tampa Bay area, 1994). His focus of the largest and most developed in the Bay Islands and he said and New England becomes the apparently predominant (Bogdoni interview for ECO-PAC/Bay Islands general conservation).

In sum, the political legal elements and related resource management which ENCA (or any other NGO) in the Bay Islands is unable and particularly unlikely to perform. However the national context and pressure from outside a situation where an organization like ENCA can think a constituency. In long as these conditions exist, there is reason for ENCA to ignore all of its problems. ENCA has the potential to become efficient through government because it does not appear to be able to corrupt. ENCA members generally perceive that ENCA needs enforcement authority in order to form an effective governmental entity. Members hold ENCA responsible as of it and its ability to enforce the law in the Mesoamerican Reserve. The more this government ENCA becomes, the more people place value in them and the more resistance of corruption among external firms go toward. It spans governmental entities ENCA is a legal institutional mechanism like Honduras puts them at a very difficult situation indeed.

Finally the social and economic role of the Bay Islands are closely related to the international business sphere. As difficult as pressures mentioned in the business industry they perfectly recognize the protection of natural and cultural support available from mobility.

international preserves (RCCA) and well-established materials. Having strong connections to the Bay Islands or other overseas interests of Bay Islanders involved in tourism, but it also provides an outlet for natural resource conservation desired for neighboring North Americans and Europeans. Providing "green" offices in the Bay Islands through RCCA, allows local businesses to associate their natural strong potential with other people's money. In tourism theory terms, the success depends on natural resource conservation at the Bay Islands to correspond to the perceived local community green benefits in the environment. The major factor contributing to visitors Bay Islands toward the fulfillment of their performance the environment. In practice, there is little protection over the ecosystem. However, when placing one of local visitors over local resources to consider or directly influenced by the expansion of associated performance, additional complexities and uncertainties arise.

#### Influence of Changes of the Administration on RCCA Performance

RCCA's symbolic goal of nature local members can be extracted from a highly diverse cultural, connected form. The profile of RCCA's membership adheres the Aristotelian approach, progression class, emphasis and effort issues. It has been established that there are financial and socio-cultural conditions for the formation of RCCA and the profile of potential potential the Aristotelian eight cardinal. Survey results reveal whether the motivation for local membership in RCCA more precisely from their conviction of how climate changes are potentially at risk.

Survey responses indicate that the average age of adult members RCCA members is 42. The high observations 47 and the low is 14. Party gender (22 out of 40) of respondents are lifelong residents of the Bay Islands. The mean length of residence of these survey members is 12.14 years. The low measured observation six years and the high is 31 years. The total previous membership of RCCA's membership is often an indirect function dependent upon the quality and quantity of natural resources the local natural environment. Most members are local entrepreneurs involved in either

the survey on holding voluntary service roles. On average, MCAs members are relatively well off in comparison to the general population. Only 30 percent (1900) of respondents do not depend on the remuneration or the resources of MCAs for their financial well-being. Therefore, the potential effects among the membership is limited. Thirty-two percent (211) of these individuals are married. The husbands (209 persons of the total) are often retired. No assessment of government employees.

Religions play a dominant role in MCAs. That is slightly more evident than the case in MCAs. The influence of English is stronger than Spanish in MCAs, although most programs, documents, surveys, and translations can be found in both languages. Other Islands' languages (e.g., Canadian French word, People of various nationalities or ethnicities are not generally members of the organization. They are often the intended targets of MCAs programs. There are five members of Abrahamic faiths listed. One member was identified as being Hindu/Catholic. However, he does not follow any religion. Most members are Christian, the most usual and prevalent of the Islands are about three-fourth non-Catholics. Some, but not a majority of the individuals holding political offices are members of MCAs. While the frequency of being Islander varies over religious or cultural, the participation or inclusion of any of the churches in MCAs activities is minimal.

Members of the Bay Islands are traditionally separated by ethnicity, language, residence, and religion. Many Islanders are treated toward freely basis. New immigrants from the mainland and from foreign countries are encouraged toward inter-cultural relationship regarding community level organizations and associations. Survey results indicate that 40 percent (304) of respondents are members of other local religious groups outside of themselves. The potential for productive international linkage is supported by these responses. However, fewer than 10 percent (76) of respondents will have membership in other cultural resource-oriented organizations at any level. All the respondents

The general education level of Bay Islands respondents indicates there is no great deal of understanding of environmental issues. The education level of RICA members is observed to be much higher on average. The interaction between the length of the lead role of the one and the implications of individual actions on Islands social goals are not heavily understood among Bay Islanders. Clearly there are areas of great importance on RICA members.

In sum, RICA's members' disease related concerns increase, when in contact with the Bay Islands at large. On average RICA members are decidedly more health aware, informed, dependent upon the formal/uniform economy, foreign, English speaking, middle, and power is relatively unimportant than the general population. The differences between the member profile of RICA and of the Bay Islands are observed to influence RICA's approach, program choices and processes.

The general majority of RICA programs efforts are oriented toward increasing or advancing an environmental preference to the protection of marine resources in the Bay Islands. These disease effects are in largely territorial areas. Other more collective issues (environmental, but independent from disease) receive greater attention than other units of the marine industry/bay area related. Observed differences further RICA's orientation by temporary returning to the interests of the domestic industry. This leads to interesting a emergence that natural resource management efforts are primarily for foreigners and only secondary for Bay Islanders. Survey results indicate that RICA does not resolve the community sufficiently as a program and therefore enjoy reputation based community support. Long term effectiveness would however depend upon changing environmental processes of the majority of Bay Islanders, particularly those who have no contact with disease.

There is no observed propensity to advocate environmental policies to result in increased goals of the organization. Low self-efficacy, diminished perception of potential harm, and moderately moderate ranking mitigate proportion of RICA's efforts. The industry-based environmental

positions could be the result of social and economic characteristics associated between IBCA members and the majority of Bay Islands Survey respondents believe that IBCA members are their preferred form of environmental governance rather than minority opinions in the Bay Islands. In North America and Europe regulation at a national and international level can accomplish the behavior of integrated regulation. IBCA's regulatory influence may have limited this approach.

Regulation and enforcement may provide effective albeit more contentious environmental action. However, unlike Congress, a preference for control over voluntary or market-based changes in behavior are largely publicly costly and can result in undesirable governance movements, particularly in an insufficient enforcement environment. Regulation needs to be coupled with developed efforts to change capacity throughout the Islands. Market environmental education processes have been ineffective with the absence of enforcement and monitoring.

Although capacity is present in the Bay Islands, IBCA does not coordinate efforts with the local director. This approach may derive from corporate influence on the organization. U.S. and European environmental NGOs are similarly weaker and violent regulation can not be used to be used effectively. IBCA has had potential greater success using its partnership as a means of governmental operation. The monitoring of power locality generated individual and processes may have informed these relationships.

Finally, a common difficulty in social organizations is in distinguishing between the behavior of an institution itself and the behavior of the organization itself. For example, several respondents indicate that they became members because IBCA organization were much more than they originally imagined personally. In a close connection, due to the social and economic nature of its leaders, IBCA appears to influence in ways that members are not able to believe as individuals. The leadership of IBCA requires primarily of bilateral communication are often the views of relatively powerful individuals. On the contrary, IBCA members feel that no leaders are directly

powerful individuals and that powerful leaders are seen as necessary for BICA success. Leaders' own levels of base income statistically more highly than non-Hispanic Spanish speakers rate the necessity of power significantly more highly than English speakers. This leadership may give BICA leaders incentive to carry-out its programs.

However, being friendly and amiable with strong performance does not always make it easy to be a member of BICA; if a member is at leadership personnelized, the leaders need to be positive all the time as representatives. Personal conflicts and organizational conflicts can become enabled. Positive relatives are less diverse in the last sentence of the organization.

In none of the survey results reported in Chapter 1 or has been observed that leaders of the generalized concept of the Bay Islands indicate the importance for power, authority, connections like BICA. BICA's resources, position, behavior and performance are influenced by the cross-political and economic interests in the Bay Islands. The missing distinction between the member profile of BICA and of the Bay Islands is general culture BICA's program choice, cultural differences. The final chapter provides recommendations the BICA to enhance its effectiveness in light of the information provided in Chapters 5 and 6.

## CHAPTER 1 POLICY DIFLUCTIONS, RECOMMENDATIONS, SUMMARY AND CONCLUSIONS

### Finalisation of the Approach

Design-oriented approaches as they may however be expressed make for the representation and valuation for the management of natural resource stocks and flows. In the future they are an indispensable part of any discourse of sustainable resource development. "Hard" generally is one of the primary factors contributing to the non-implementation of natural resource policies in addressed countries are unlikely to be successful over the long term unless they explicitly address the needs of the human populations that depend on these resources" (Dietzsch, 1991, p. 21).

NGO's often work in areas of operating, orientation, dynamics, risk, theory, freight, issues and performance. A comprehensive analysis of NGOs has largely been developed. Theories of NGO behavior and performance can be built through conflict management, are well defined advantages of the overall nonprofit sector. "One of the great challenges for policy analysts is the range of organisational structures which can mobilise local resources and integrate it with improved operation. In seeking to promote the development, we therefore emphasize the importance of local organisations for controlling assets and delivering services" (Johansen and Clark, 1992, p. 24, as Elmer and Updegraff, 1994, p. 45). Developments and experiences reflected NGOs, particularly at the local level, are the most recent type of nonprofit organisation to rise in a trend of prominence in the United States and other countries.

This work provides a deep understanding of one particular business approach—the Royal Islands Conservation Foundation (RICF). RICF served as a case study of a specific type of local voluntary self-governance organization. A detailed quantitative analysis suggested a general research approach. In an attempt to provide a deeper understanding of RICF, while acknowledging the potential to draw more general conclusions, two related research questions emerged. First, what are the institutional and organizational factors under which any improvement approach for the management of conservation must function? Secondly, given that RICF changed and persists, what are the features of the organization which enable it to adapt its strategy to new circumstances? Based on these research questions a conceptual and analytical mixed-methods methodology is designed to contribute important information and to their applications useful to RICF. The findings were tested and evaluated in several subtopics about RICF's using this analytical mixed methods methodology.

Reviewed evidence suggests the existence that there exists a positive relationship between RICF's capacity (adaptive) framework and its ability to implement programs. RICF's programs are found to be correlated with the effectiveness of the broad implementation framework. However, RICF's diverse outcomes are not correlated with the degree of capacity measured in the governance framework. Features of the operational context are found to be significant predictors of the achievement of institutions, but not the capacity of capacity.

Among the theory supporting features of the approach adopted in this study is the relevance upon local knowledge and indigenous values (see the concept of "adaptive analysis").<sup>12</sup> The insights gained through applying long-term knowledge are weighed against the analytical framework of induced inquiry and imperative to adopting such an approach. Surveying the methodology makes it possible to draw specific quantitatively-analytical outcomes from within a case study approach. The hybrid approach thereby useful qualitative and quantitative information. The hybrid approach

allows for a comparison of the various effects of different management variables and generally informs the performance of marketing efforts through the inclusion of many control variables. Such an approach is particularly useful at the level of marketing and largely research theory. While the determinants of performance are numerous, it is felt that a participatory and participatory approach of local government public sector goals is most traditional approach.

### **Focus of BICA's Performance Patterns**

In reference to the planning and goal setting variables found in the literature, BICA was found to effectively mitigate resources externally available or internally. Resource utilization and external and internal resource management are correlated with the evaluation of performance. BICA provides a broad array of conservation-related services to the five Islands. The services provided by BICA are well integrated with governmental and nongovernmental groups.

With regard to the organizational structural variables found in the literature, BICA has many functions and is often referred to managing, service delivery, and administration. BICA has created more varied than functional budgets. The organization is administratively homogeneous and relatively well off in comparison to the general population. It does possess slightly greater female than male participation. BICA is small and heterogeneous. BICA has demonstrated the ability to be flexible and to adapt to its changing needs and trends in service needs over time regardless of the focus.

In terms of the performance variables used in the literature, BICA directly provides basic and education services. It indirectly provides enhanced access transportation, enhanced health, and improved water supply with ownership and the broader community. It does not substantially influence income distribution, or social and gender discrimination. BICA does in some areas

pollution issues to public concerns, and the degree of government and community participation in environmental issues affecting their Bay Islands.

In terms of potential threatened problem areas, BCCA has many potential impacts on the progress, settlement, development, and well-being of our islands. It most definitely suffers from disparate levels of participation among the membership. BCCA has considered environmental responsibility rather consciousness of corruption and corruption. The Association plays similarly with the non-governmental organizations and Bay Islands. BCCA has been more successfully oriented toward the non-governmental organizations and Bay Islands. BCCA has been more successfully oriented toward the non-governmental organizations and Bay Islands, and individual, governmental and nongovernmental groups at any level. There is no official government staff position authorized for BCCA members. However, several members are local and national level elected officials and BCCA is supposed to play a quasi-governmental role in the management of potential areas and the reporting of information of environmental legislation.

BCCA, like many of local organizations concerned with natural resource management, suffer from people's apathy. "Natural resource management" usually means removing trees or earth that there might be greater value in. People don't like being told what they can and can't do. They would probably change if they have enjoyed a relatively benign life on the Bay Islands. Many Islanders feel that no consequences of individuals actions will ever affect them due to the protective regulations. However, individuals and their greater awareness for their actions often times. A few have the view that access to the waters and types of resources should be controlled for the long-term benefit of all Bay Islanders. Recently laws that should be done is not generally used with any enforcement.

### *Impact of the Institutional Context and Financial Resources Base of the Bay Islands*

Aspects of the natural resources of the Bay Islands influence a number of factors of BICA. In terms of environmental variation found in the islands, the topography of the Bay Islands is quite varied and can therefore range, tropical, subtropical, rock, stone and sand. One of the shared resources that comprises the flora and fauna of the Islands (including the surrounding reefs) and the natural spaces that lie off of the Islands varies predominantly in mammals (Coatim, bats, monkeys and bats), over mammals are in great and approaching areas. While the variability of information regarding these features of the natural base is increasing, the number of people having access to the environment and grasping the gravity of the situation appears to be low.

Because of the Bay Islands' proximity from neighbors on BICA as well. The economy is still based on the diversity of economic activity in the formal and informal sectors as based on the flow of services from the natural resource base. Bay Islands are highly subtropical ecologically and in terms of the shared flora of Islands from the natural base. The ecological and spatial variability of benefits from the shared resource base is high when considering the old and new of Bahia Ballena and the tourism industry in the Islands. In many cases the current position of the natural base is still good. However it appears in the present the reverse. Currently, some resources from biology (relative to a mixed environment and over developed land of "green agriculture" and "all inclusive"). Therefore evidence for problems of natural extraction and use relations are extremely very good but potential sustainability. Pirated infrastructure in the Bay Islands is increasing at a high rate.

Social factors of the Bay Islands may potentially influence aspects of BICA. The general standard of living or open law by developed country standards. Generally, income and wealth follow who gain distribution with the poor majority of the economy under control of a minority of

individuals. A strongly used law concerning control of individual consumer choices in preference of the Bay Islands. There are relatively few sellers but the concentration is the Bay Islands. They have numerous consumer interests. Highly individualistic consumers, they tend not to perceive others as important (pure consumer interests). The focus of the Bay Islands are largely, skilled and wealthy entrepreneurs; it does not appear that there is a great deal of popular or Constitutional values in the world view of local leaders. MCA is a leader set more broadly, nationally and community oriented. However, they may not possess the same level of business interest because are the political entity of the Islands' leaders.

The legal system and enforcement rights against protecting interests are very cohesive aspects of MCA. There are rules in place for managing the several resources, but none of them are mandatory and they are slightly reinforced. Changes in the rules protecting the use of the natural resource base are likely to come as the law is written, however, how they might evolve and what major changes will have on the dimensions of the legal resource base. Thus far there appears to be different widely-distributed norms on how natural flora, fauna and water bodies are the dominant mechanisms employed to allow broader outcomes of interests are. The perception of legitimacy of natural and ecological rules governing the use of natural resources apply and have increased.

Cultural factors of the Bay Islands may also influence aspects of MCA. Diplomatic relations patterns are varied, ranging to deep partnerships to few exceptions. Most developments are import and new or non-traditional. With local participation for some developments in the islands. The Bay Islands are highly socially heterogeneous and stratified. Traditional gender roles are apparent in society. Low key developed roles standard. Inhabitants of MCA and other areas tend not to have voluntary associations, while those of mainland Honduras become increasingly more common in MCA. The strongest factor though you can be divided into two patterns. The first

majority of Bay Islanders have lived on a culture considered "as needed" basis. Initiatives provided by short- and long-term visitors have assisted poor Islanders and their respective to deliver a sensible transportation and orthopaedics associated with traditional patterns. Most Bay Islanders either do not know or do not perceive that there are reasonably alternative options to living in the Bay Islands. However, most, if not all, RICA members having the financial wherewithal to explore such options.

### Conclusion and Recommendations

Based upon the reviewed survey results and observations, the potential policy implications of this research can be drawn at three levels: organizational, community, municipal government, and institutional drivers or patterns. The approach and boundary conditions defining this study limit the scope of the policy implications at the more local level. All policy implications and recommendations are drawn with respect to how RICA might become more efficient. However, some more general observations may provide weight at levels more removed than the perimeter area:

#### Implications for RICA and the Conservation of the Bay Islands

First and foremost, research of this kind should provide information and a learning experience for RICA. Through their participation in the research process, RICA members should gain a better understanding of how they might enhance RICA's ability to achieve its goals and objectives. Members should then take it working, what is not, what changes can be made to improve RICA's effectiveness and who better are contributing to efficiencies which members may not have any ability to change. Many features of the Bay Islands cannot be directly or eas-

efficiency enhanced through reduced efforts on the part of BCA. However, there are a number of areas concerning BCA's interests and behavior which could potentially expand BCA's effectiveness for both our welfare. Here, three examples are raised to discuss the types of actions that might be undertaken.

#### **Improve marketing and promotion**

BCA members identified the lack of consistent messages of funding as money that were giving incentive for the Association. Responses to external and internally generated funding specifically remarked the positive progress has limited BCA's ability to address these issues which are issues that we need funding for the Bay Islands. A consistent and disseminated media would allow BCA to continue progressing due to more exposure to citizens, but might not be able to affect change for a period of time. A more systematic strategy for fund raising and promotion might alleviate some of these concerns.

Thinking about the Association's concern of funding as terms of contributions or assessments of BCA's services might help to reduce the assessment factor and to provide appropriate information to those who are interested in its well-being. BCA attempts to attract financial, human and physical resources to implement its programs in which to implement the principles from local (non-Roman Catholic) non-governmental organizations and non-governmental organizations (individuals and organizations), non-resident related donors, the Honduran government (municipal, departmental, and national), and international donor organizations. With the growing track of capital under control of BCA and the form of new capital from these contributions, BCA is able to emphasize on other programs in order to make its broad signature. Each of these contributions has direct implications, risks, and potential influences to the ability of BCA in advancing its objectives. That, then, should be considered drivers after marketing and promotion of BCA's key points of importance.

## **Standard office procedures and time permitted**

BUCA's leaders also complain that they spend so much time meeting with government officials that they have no time to take the Association over financially. Some express concern that members may not particularly notice an RICA, implying that the availability of private loans is enhancing RICA's stability in portions. When the PowerGroup expansion comes, RICA will be more equipped for potential legal opposition; however, RICA offices could help to distribute the costs of insurance evenly and, perhaps, make it possible for more insurance funds to be put to use.

RICA, at a small expansion, often becomes an issue of a small business. Potentially, if RICA is planning to expand to new areas of the business could impede its effectiveness. Currently, information is often not written down or recorded in a way that anyone except the providing individual can figure out. As a result, there are many management fears about attempting to decipher administrative tasks by the person who underneath the information is writing. Little of administration under a responsible administrator individually would be reasonably for retaining information. The results are a lot of variations. The administrative manager is asked, how many days are recorded and used provide an example of how procedures could be adopted and standardized for RICA's benefit.

Staff have been better acquainted with what RICA does, relationships and ways for role in the office are not presented by offices and, there is a high level of traffic through the RICA office and RICA units never cease. No one should leave the office without knowing what the governmental resources are in the City because when RICA is doing, about their resources, nothing related to just to make a decision.

Annual financial resources have improved over the last few years of RICA. However, an increased rate has not yet been determined to prevent the external funding. An effort is needed for

number of bases reported is the administration of each project which helps determine the appropriate methods used or the type of project. Other factors become influential. The three level funding matrix for ongoing programs. In addition, more accurate accounting of available resources will yield a better understanding of the usual usage requirements for each type of program.

#### Other related subsections

The development of citizen organizations and other NGOs, private donors, and governmental agencies that could influence the Bay Area are also important to BCA's ability to reach its objectives. Efforts to support these external and institutional linkages as well as supporting the broad based support of BCA may result in support by citizens and the rest of the non-governmental community.

In addition to research the capacity of BCA to conduct broad programs, it would investigate governmental partnerships. Other NGOs may have cooperative advantages in financial, personnel, and species management that in their institutions and communities. Increased coordination could allow BCA to focus on those programs in which it is best suited. Further, there are an unexplored part of society at the local, regional and national levels of support for environmentally concerned individuals in their objectives of BCA. Therefore, it may be valuable work through the churches to get the message out. The churches may have their own relationships between the more rural religious leaders and some of the church members. Many of these members have experience with developing country-based NGOs which often directly involve states.

#### Conclusion for Management Agencies and Institutions

Among the observations derived from this study is a number of insights which governmental agencies might adopt to influence the strategy of BCA or other voluntary organizations to achieve their objectives. Over time, the congressional, departmental and executive government may

influence these factors of the institutional context which affect MCA performance. A legacy of governmental past and present has influenced both the formation of MCAs and quasi-governmental authority and governmental efforts to make and enforce environmental regulation (but also enforcement of environmentally-oriented laws in general manners). However, environmental and effective energy regulations take account the probable environmental impact of certain types of development is also as also need. The importance in the performance of governmental officials and agencies' straightforward as an improvement in the ability of MCAs to perform.

The level of public pressure, participation, health and influence is usually low in the three islands and in Brazil as a general. Improvement in government performance with respect to general education and public health should directly influence the ability of MCAs to reach outlined social objectives. And from the dispensing of efficient public-private partnerships detailed above, governmentally-related programs in the cultural and legal environment should enhance the ability of MCAs and their MCAs to perform.

Analyses reveal that another response is transfer of input, behavioral and structural features of MCAs consistent with the realization of its performance. Measured variables indicate that a lack of openness, inefficient delivery of programs, inefficiencies of the young, short-termistic implementing programs, and the development of vertical and hierarchical linkages are among the most seriously hindering performance of MCAs' capability to perform. Thus organizations concerned in developing relationships with MCAs might look to these factors in determining whether and how to assist and advise partnership. It is noted that other local functional areas, associations engaged in natural resource managing activities can contribute to make environmental control to MCAs, an assessment of these factors may prove its potential assistance for shared partnerships with them. The MCAs located in the north east of Brazil are provide typical examples.

Conclusions can only be derived with any confidence with respect to MCA. However, as reported there were similar prior organizations were tested, different from students, and hence, however likely it is that the former which pass in performance in their MCA will be the same or are found within MCA. Only further research can ascertain the important importance. In an environment where an ever increasing number of groups are a part of a fast-paced of available tools, identifying a minimum set of necessary conditions for success just in any "given point," however, of such a complex would prove highly valuable to setting long-term objectives of sustainable development.

To conclude, a general theory of MCA behavior, as well as a specific valuation of the highly diverse ecological matrix, is an interesting at the time. However, this research provides a simple and useful approach to conceptualize and analyze MCAs. It contributes to the ongoing discussion attempting to better understand and enhance the ability of valuation experiments to meet their objectives such that a more comprehensive theory of MCA behavior, evidence, persistence and performance might be developed on the basis. It remains now dialogue the issue of the usefulness of MCA. It argued that the well-known positive option of the platform from which each research can discerning and estimating set of parameters for the suggested management of natural resources might be undertaken on the basis.

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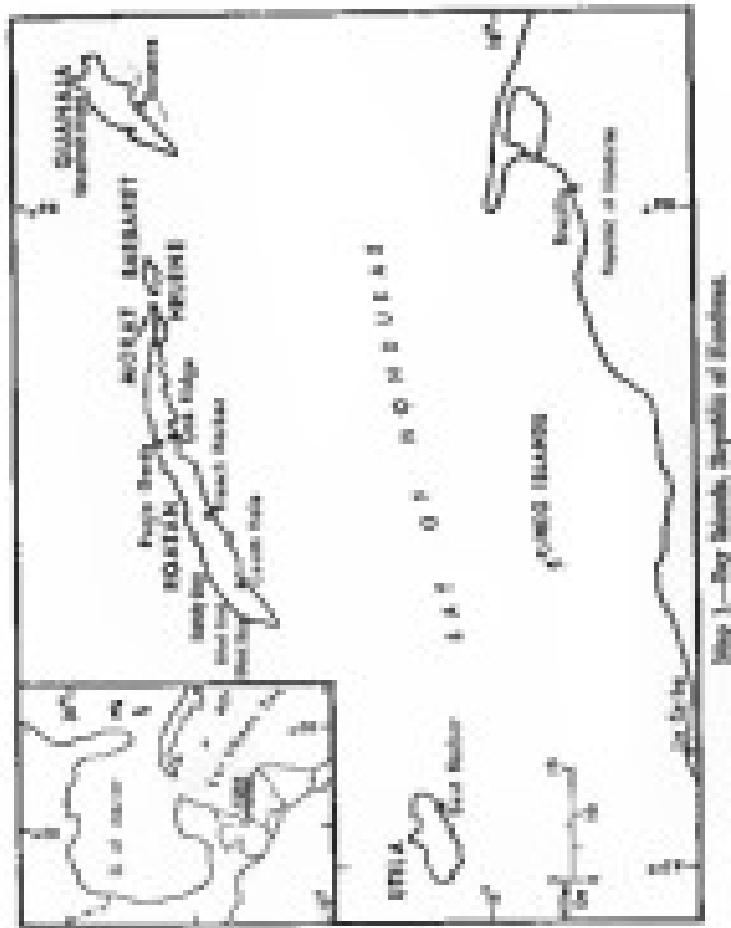
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APPENDIX I  
Simpler Version of Abbreviations Found in Text

AG	Agency and Organization
AGRICOM	Association for the Development of the Bay Islands
BICA	Bay Islands Conservation Association
CADD	Committee Agency for International Development
CDF	Confidence Committee/Copartnership
CF	Conservation Fund
CG	Conservation Organization
CONFOR	Florula Conservation for Poverty Development
COOP PLAN	Cooperatives Planning Board
CRD	Community Impact Resources
FAO	Farmers' Assistance Organization
FAO-LTE	Farm and Agriculture Organization of the United Nations
FIU	Florida Institute
FLACIA	Governed Colony/Residual/Hot and Lake Chameleons Protection
FLCC	Quay-and-Market Protection
FLPPR	New Belize National Park Protection
GBI	Geographic Information Bureau
GLC	George Lucas Club
HNP	Human Environmental Finance Trial Project
IA	Impact Assessment
IAF	Inter-American Foundation
IBD	Inter-American Development Bank
INT	Intergovernmental Institute of Belize
IMS	Institute for Marine Science
INSPOT	(Belize) Internally Professional Development
ISCN	International Union for the Conservation of Nature
LLA	Local Development Agencies
MAESTRA	Maya Bay Islands Professional Litter Assessment
MOD	Non-governmental Organizations
MTV	Music Corps' Volunteers
PROLAMATE	Foundation for the Protection of Laminitis, Poto: Ixil and Tapach
QUANJO	Quan Management Corporation
REDCOM	Resilient Economic Recovery for Sustainable Development
SECTUR	(Mexican) Secretariat of Culture and Tourism
SICA	(Panamanian) Ministry of the Environment
TNC	The Nature Conservancy
TIA&D	Transport Infrastructure and Development Inc.
UN	United Nations
UNDP	United Nations Development Programme
UNITAR	United Nations Institute for Training and Research
UNDP	United Nations for the Conservation of Nature
USAID	United States Agency for International Development

APPENDIX  
MAP OF THE BAY ISLANDS HONDURAS



SOURCE: Adapted from Gosselin (1979).

**APPENDIX 1**  
**ONLINE SURVEY OF RICA MEMBERSHIP AND**  
**PRIORITY OF MEASURES IN RESPONSE TO CLOSED FORM STATEMENTS**

(N = 129 previously listed and additional members)

ave = 3.50 mean response

s = 1.17 standard deviation

q = 4.02 median response

sd = 1.41 standard deviation

Frequency distributions described here reflect open and responses only. Responses of "No answer" were not included in the analysis of these satisfaction statements.

Likert Scale: 0 = Strongly Agree, 1 = Agree, 2 = Neither Agree or Disagree, 3 = Disagree, 4 = Strongly Disagree, 5 = No answer response.

### I. Outcome Oriented Statements

	0	1	2	3	4	5	%	Mean	Standard Deviation
RICA protects and manages the fragile ecosystem of the Bay Islands	1	37	3	13	1	1	3.48	1.02	
RICA protects sustainable tourism through the wise use and management of the Islands' natural resources	1	31	3	19	4	3	3.07	.99	
RICA creates environmental awareness throughout the Bay Islands through education and community involvement	20	38	1	3	9	3	3.26	.76	
RICA conserves and protects the Islands' representative habitat diversity and biological species	3	33	1	18	1	3	3.26	1.13	
Overall RICA has had these goals as well as it is able to meet them	8	31	1	8	3	3	3.22	1.04	

### II. Output Oriented Responses

	0	1	2	3	4	5	%	Mean	Standard Deviation
RICA's environmental education programs have been successful	9	19	1	17	3	4	3.76	1.07	
RICA should do environmental education programs	10	13	4	17	6	3	4.26	.41	
RICA has been able to raise money from tourists off the Bay Islands	2	23	1	9	2	12	3.46	1.24	
RICA should raise money from tourists off the Islands	10	10	1	3	1	6	4.16	.41	
RICA has been able to raise money from local people and tourists	2	14	1	5	3	4	3.90	.47	

WCA should use money from local people and towns	12	10	4	10	2	4.41	60
WCA has been able to get training for most of its members and employees	3	29	3	1	1	3.83	50
WCA has organized good training for its members and employees	31	29	3	1	0	4.33	50
WCA has been able to maintain the Islands' present areas	4	26	3	14	4	3.20	119
WCA stays/works over the Islands' present areas	29	16	1	1	0	4.29	50
WCA enforces the package	8	19	9	9	0	3.67	50
WCA is allowed to file the package	4	9	3	20	0	3.00	50
WCA receives fair and regular legal representation by legal services	12	26	3	1	0	3.75	50
WCA receives fair and regular legal representation by legal services	30	21	9	2	1	4.43	50
WCA has sufficient non-expense programs	1	20	2	11	3	3.00	50
WCA has sufficient welfare management programs	10	29	4	1	0	4.00	50
Overall WCA does what it has to do	4	29	4	3	0	3.67	50
Overall WCA does what it should do	1	29	2	10	2	3.67	50
Overall WCA does what the law Islands need now	11	29	3	1	2	3.88	50
Overall WCA does what it does best	3	41	2	5	1	4.00	50

### III. Inputs, Throughput and Output: Overall Questions

	No	Yes	No	Yes	No	Yes	Mean	Standard Deviation
WCA is more useful to the public than the law Islands need it to be	10	37	2	13	3	1	3.55	1.05
When members are unhappy with WCA their concerns are handled well	3	9	3	13	1	21	3.89	1.23
When members are unhappy with WCA their concerns are handled well	1	17	0	4	3	34	3.00	1.13
The procedures and legal system make it easy for educated people to form independent groups	1	24	1	9	1	9	3.00	1.00
In WCA's view, the procedures and legal system are helpful to the organization	0	24	0	4	1	3	2.00	1.00
Key members participate at group meetings of their choice	1	13	4	17	0	3	3.00	1.28

**How effective environmental offices of the church that are based in the Islands**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

**Bay Islands used to measure the environmental effects of the things that we do in the Islands.**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

The people who BICA programme has had enough training to do the job well.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Having well trained people is needed to be able the programme will be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA members have common interests.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Having interests or interests is needed to increase BICA will be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA members have common interests with the rest of the members of the Bay Islands.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

What BICA's nothing about / interests from Bay Islands.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA speaks enough about and affect regarding the community in the organization.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Most Bay Islanders agree with BICA's program and ideas.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

The support of most Bay Islands is needed for BICA to be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA members are active at the organization.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

It is easy for members to participate in BICA if they want to.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA's decisions are made by one or a few individuals.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Members feel free to make suggestions to BICA.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA communicates with the membership regularly.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA is publicly present in the Bay Islands and other Islands.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Enough power is needed for BICA to be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA has a lot of money to work with.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Having enough money is needed to make for BICA to be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

The leaders of BICA are good people in the Bay Islands.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Powerful leadership is important for BICA to be successful.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA would be put in agreement under different leadership.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

BICA works well with other local organizations, officials and local government agencies.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Working with other local governments and non-governmental organizations is needed for RICA to be successful.	29	16	9	6	3	0	-0.23	58
RICA needs only national and international organizations and the national government.	1	34	9	1	0	30	0.62	37
Working with national and international organizations is needed for RICA to be successful.	11	21	1	10	0	6	0.43	38
RICA focus on groups or individuals who respond to environmental issues.	4	24	9	7	1	10	0.11	121
You strongly morally share about the same amount of money and the same culture/background as your life.	0	11	1	20	9	1	0.74	120
What is good for the environment is good for everyone in the Bay Islands.	11	11	0	9	0	8	-0.09	109
What is good for business is good for everyone in the Bay Islands.	1	18	4	16	3	0	0.79	111

**APPENDIX 4**  
**RESULTS OF MEMBER AND NON-MEMBER MEASURED RANKINGS**

Table A4.1. Member Ratings of Organizations by Country – Countries, regional and by income class code: 1=strongly agree, 2=agree, 3=neutral agree or disagree, 4=disagree, 5=strongly disagree.

Country									
	One	United	All	United	Unit	United	Strongly	Unit	United
	North	South	North	South	Unit	United	disagree	Unit	United
<b>SDG1: promote sustainable development and sustainable management of the oceans, seas and marine resources</b>									
one	3.1	3	3.1	3.1	3.1	3.1	3.1	3	3
omega	3.33	3.00	3.33	3.00	3.00	3.00	3.00	3.00	3.00
<b>SDG10: reduce inequality within and among countries through sustained and inclusive economic growth</b>									
one	3.1	3	3.1	3.1	3.1	3.1	3.1	3	3
omega	3.33	3.00	3.33	3.00	3.00	3.00	3.00	3.00	3.00
<b>SDG13: climate action through sustainable development and sustainable consumption and production</b>									
one	3.1	3	3.1	3.1	3.1	3.1	3.1	3	3
omega	3.33	3.00	3.33	3.00	3.00	3.00	3.00	3.00	3.00
<b>Overall SDG16: just, peaceful and inclusive societies</b>									
one	3.1	3	3.1	3.1	3.1	3.1	3.1	3	3
omega	3.33	3.00	3.33	3.00	3.00	3.00	3.00	3.00	3.00

**Time Attenuation of Organizational Performance – Outcomes by gender, language and education**

B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
	New	Business	Special	English	English	New	Power	Smart	New	Smart	New
level	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)
stage	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)	(adult)
B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	21	21	12	21	41	21	21	21	11	11	21
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111
B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	21	21	12	21	41	21	21	21	11	11	21
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111
B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	21	21	12	21	41	21	21	21	11	11	21
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111
B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	21	21	12	21	41	21	21	21	11	11	21
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111
B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	21	21	12	21	41	21	21	21	11	11	21
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111
Overall B2C customer loyalty programs: 1) member loyalty programs, 2) rewards programs, 3) frequent buyer programs, 4) promotional programs, 5) cross-sell programs											
new	16	20	11	20	45	17	14	16	12	16	16
stage	1111	1111	111	1111	1111	1111	1111	1111	111	111	1111

Table A4.2 Member Rating of Organizational Performance – Overall Performance, overall and by dimension.

	Overall	Members	All	Concerned (n=6)	Unconcerned (n=11)	Reactive Inert (n=10)	Concerned (n=12)	Unconcerned (n=10)	Members (n=21)
	Mean	N=11	N=11	Mean	SD	Mean	SD	Mean	SD
<b>ESCA: how concerned the member rating was about their organization</b>									
not	4.9	1	5.0	5.1	.11	5.0	.00	5.1	.10
not at all	3.31	1.75	3.31	3.33	.00	3.31	.00	3.31	.00
concerned	3.31	1.75	3.31	3.33	.00	3.31	.00	3.31	.00
<b>ESCA: how able the organization was to implement its strategic intentions</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>ESCA: how able the organization was to meet its financial and economic targets</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>ESCA: how able the organization was to meet its political and social targets</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>ESCA: how able the organization was to meet its technological targets</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>ESCA: how able the organization was to meet its environmental targets</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>ESCA: how able the organization was to meet its human resource targets</b>									
not	3.5	1	3.6	3.7	.17	3.5	.00	3.5	.10
not at all	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
able	3.11	1.75	3.11	3.13	.00	3.11	.00	3.11	.00
<b>Overall ESCA: three areas of concern</b>									
not	4.9	1	5.0	5.0	.11	5.0	.00	5.0	.10
not at all	3.61	1.75	3.61	3.63	.00	3.61	.00	3.61	.00
concerned	3.61	1.75	3.61	3.63	.00	3.61	.00	3.61	.00

Table A4-4. Member Rating of Organizational Performance – Appropriateness of Organisational structures, communication, leadership

	Chair	Minister	SL	General secretary	Units level	Section level	Branch level	Units level	Minister
	n=18	n=9	n=9	n=11	n=9	n=9	n=12	n=10	n=11
<b>BUCA: Appropriate organisational structures</b>									
yes	16	9	12	11	9	9	11	10	10
no	4	0	0	0	0	0	0	0	1
nope	4.44	4.78	4.44	4.55	4.29	4.72	4.83	4.4	4.44
<b>BUCA: Appropriate communication</b>									
yes	16	9	12	11	9	9	11	10	10
no	2	0	0	0	0	0	0	0	0
nope	4.44	4.00	4.44	4.29	4.29	4.29	4.50	4.00	4.00
<b>BUCA: Appropriate leadership</b>									
yes	16	9	12	11	9	9	11	10	10
no	2	0	0	0	0	0	0	0	0
nope	4.44	4.00	4.44	4.29	4.29	4.29	4.50	4.00	4.00
<b>BUCA: Appropriate management processes</b>									
yes	16	9	12	11	9	9	11	10	10
no	2	0	0	0	0	0	0	0	0
nope	4.44	4.00	4.44	4.29	4.29	4.29	4.50	4.00	4.00
<b>Overall BUCA done well</b>									
yes	16	9	12	11	9	9	11	10	10
no	2	0	0	0	0	0	0	0	0
nope	4.44	4.00	4.44	4.29	4.29	4.29	4.50	4.00	4.00

Table 6.4.1. Higher Rating of Organizations by Income - Output Preferences, by gender, language and nationality.

User under Strength open, bright, freedom-open or change, change, bright Strength, Brightness										
	Male Total (N=12) N=10	Female Total (N=12) N=10	Spanish (N=12) N=10	French (N=12) N=10	Both (N=12) N=10	Asian (N=12) N=10	African American (N=12) N=10	Pacific Islander (N=12) N=10	Male Asian (N=12) N=10	Female Asian (N=12) N=10
<b>MECA: no personal relationship, open and free from control</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, able to express individual ideas outside of the family nucleus</b>										
men	16	15	11	20	11	17	11	11	17	13
women	2.11	2.2	1.94	2.07	2.44	11	1.79	1.28	1.92	1.93
<b>MECA: no hierarchy, able to take money from local people and reinvest it</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, able to express individual ideas outside of the nucleus and neighbors</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, able to speak over the World, extended area</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, free from political control</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, free from social control</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>MECA: no hierarchy, free from economic control</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03
<b>Overall MECA: does not affect life</b>										
men	21	27	19	34	23	17	42	28	21	21
women	2.51	3.14	1.67	3.03	2.58	4	3.03	3.14	2.18	3.03

**Table 10.10. Mission Rating of Organizational Performance – Appropriateness of Charter**  
 The following table summarizes the results from the mission rating.

*Cyperus rotundus*, *Cyperus difformis*, *Poa annua*-*Agrostis capillaris*, *Polygonum*, *Fragaria*

	Male Year	Female Year	Female Year	Female Year	Female Year	Male Year	Female Year	Male Year	Female Year	Male Year	Female Year	Male Year
<b>PC-A: change in environmental regulation</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-B: change in environmental regulation of the Bay Islands</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-C: change from country development goals and policies</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-D: change in economic development goals and policies</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-E: change from the United States' political will</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-F: change in political party</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-G: change in political party's environmental policies</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>PC-H: change in political party's environmental policies</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74
<b>Overall Regret: change about a global deal</b>												
yr	21	11	16	20	17	11	41	14	16	19	14	21
regret	1.11	0.71	0.81	0.79	0.81	0.82	0.73	0.78	0.74	0.73	0.71	0.74

Table 14.1 Major Rating of Organizations' Predictors – Structural and Functional Patterns

BCCCA participants in the study by sex, ethnicity and age group									
	Sex	White	All	Orange land	Black African	Russia (ex-SU)	China (ex-SU)	White Brit	Black Brit
	N=34	n=29	n=34	n=12	n=11	n=24	n=12	n=29	n=15
BCCCA participants in the study by sex, ethnicity and age group									
Sex	M	1	12	3	3	11	11	12	3
Age group	18-29	2.00	1.43	1.37	2.00	2.00	1.00	2.00	1.43
Ethnicities are categories with BCCCA being recruited by ethnicity									
Sex	M	2	10	2	3	11	11	13	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
Ethnicities are categories with BCCCA being recruited by ethnicity									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
The people who do BCCCA programs and those people who do not do BCCCA									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
Those who do BCCCA programs and those who do not do BCCCA									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA groups through recruitment, recruiting for community and the community									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
More than 1000 people took part in BCCCA programs and others									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are higher in the programmes									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are higher in the programmes									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are made by one or more individuals									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are made by one or more individuals									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are made by one or more individuals									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00
BCCCA numbers are made by one or more individuals									
Sex	M	1	10	1	3	11	11	12	3
Age group	18-29	2.00	1.33	1.00	1.00	2.00	1	2.00	1.00

	21	8	20	11	17	22	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' responses according to the five income quintiles</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' responses according to the five income quintiles</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' responses according to the five income quintiles</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>The number of MCs who provided people with the key benefit</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' needs with people whom had experienced different food deprivation episodes</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' needs with regard to food deprivation episodes and the related percentage</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%
<b>MCs' needs regarding food deprivation, when it comes to experienced cases</b>									
	21	8	20	11	16	21	21	19	38
	21%	3%	20%	11%	17%	22%	21%	19%	38%

Table 14.11. Merton Rating of Organizational Performance – Standard and Extended Forms for medical, business, and community.

本章主要讨论了如何通过分析和设计，将一个复杂的系统分解为多个子系统，从而实现系统的模块化设计。

ANSWER

BICA's representation with the authorities regarding:											
	10	21	14	21	20	16	22	10	24	32	19
govt.	11	14	14	14	14	14	24	14	14	14	14
<b>BICA's representation with the law enforcement agencies:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	21	21	21	21	21	21	21	21	21	21	21
<b>BICA has a lot of contacts in law enforcement:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	14	14	14	14	14	14	14	14	14	14	14
<b>The influence of BICA on law enforcement people in the Republic:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	14	21	14	21	21	14	21	14	21	21	21
<b>BICA works well with other local organizations, national and local government agencies:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	14	14	14	14	14	14	14	14	14	14	14
<b>BICA works well with international organizations and the national government:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	14	14	14	14	14	14	14	14	14	14	14
<b>BICA has a good relationship with government officials:</b>											
	10	21	14	21	20	16	22	10	24	32	19
govt.	14	21	14	21	21	14	21	14	21	21	21

Table A4.3: Master Rating of Organizational Performance – Institutional Context, overall and by location

Liberia: Institutional score, average, 2008/2009, 2009/2010 budget, 2010/2011 budget, 2011/2012 budget									
	Overall	Western	East	Central	North	South	Central	North	South
	2010/11	2010/11	2010/11	2010/11	2010/11	2010/11	2010/11	2010/11	2010/11
<i>1) The government and legal system are effective in managing public affairs in their administrative regions.</i>									
yes	47	3	47	49	45	33	45	31	35
no	53	9	53	51	55	55	55	59	55
<i>2) In 2010/2011, the government and legal system are relatively free from corruption.</i>									
yes	41	5	41	41	38	29	41	18	35
no	59	9	59	59	58	59	59	51	55
<i>3) Institutions participating in groups actively combat corruption.</i>									
yes	42	3	42	41	42	29	41	19	35
no	58	10	58	57	58	58	58	51	54
<i>4) Institutions are effective in the implementation of laws of the things that are important to the public.</i>									
yes	44	5	43	43	40	34	45	28	35
no	56	10	56	56	57	56	56	51	55
<i>5) Institutions used to make available representations of laws of the things that are important to the public.</i>									
yes	49	3	49	49	46	32	47	19	34
no	51	9	51	51	53	53	53	51	56
<i>6) SOCA provides local citizens with justice.</i>									
yes	46	3	46	46	42	33	45	28	35
no	54	10	54	54	57	57	57	51	55
<i>7) SOCA provides local citizens with the rule of law and protection of their rights.</i>									
yes	49	3	49	49	46	32	47	19	34
no	51	9	51	51	53	53	53	51	56
<i>8) Your family usually have about the same amount of money and the same cultural background you do.</i>									
yes	43	3	42	42	37	34	42	19	34
no	57	10	57	57	58	58	58	51	55
<i>9) What you expect to get from your job is good for your personal life.</i>									
yes	44	3	44	44	41	36	43	19	34
no	56	9	56	56	57	57	57	51	55
<i>10) What you expect to get from your job is good for your family.</i>									
yes	44	3	44	44	41	36	43	19	34
no	56	9	56	56	57	57	57	51	55

Table A4.08 Master Rating of Organizational Performance – International Countries, by gender, education, and language.

	All	Female	Spanish (total)	English (total)	French (total)	Chinese (total)	Arabic (total)	Other languages (total)	Amer. (total)	Europe (total)
<b>How government and legal systems underpinning the treatment people receive are independent, merit-based, transparent, and predictable.</b>										
All	38	37	34	39	33	31	33	35	36	37
Female	33	32	31	34	30	29	31	33	32	33
<b>How PSC outcomes, the government and legal system are transparent, predictable.</b>										
All	31	30	31	31	30	34	32	30	31	32
Female	29	28	30	31	29	30	31	29	31	30
<b>How institutions provide services to people according to their needs.</b>										
All	32	30	34	38	30	31	33	32	34	33
Female	31	29	31	34	30	32	33	30	32	31
<b>How institutions underpin, set, monitor, evaluate, and reward the delivery of public services, justice, health.</b>										
All	32	32	31	35	31	32	34	30	32	32
Female	31	31	30	34	30	32	33	30	31	31
<b>How institutions need to understand the differentiated nature of the things they regulate in different ways.</b>										
All	32	31	32	34	37	32	31	30	32	31
Female	31	30	31	33	36	33	32	30	31	30
<b>How PSC measures how responsive services are to the needs of the members of the local community.</b>										
All	31	31	30	33	34	32	31	30	30	30
Female	31	30	30	32	33	32	31	30	30	30
<b>How PSC measure how responsive services are to the needs of the members of the local community.</b>										
All	31	31	30	33	34	32	31	30	30	30
Female	31	30	30	32	33	32	31	30	30	30
<b>What they expect from the government is good the outcomes in the PSC domain.</b>										
All	32	32	32	33	31	32	32	31	32	32
Female	31	31	31	32	30	31	31	30	31	31
<b>What is good for business is good for economy in the PSC domain.</b>										
All	31	31	30	33	31	32	31	30	31	31
Female	30	30	30	32	30	31	30	30	30	30

Table A4.24 Member Survey of Organizations & Processes—Problems of Performance: overall satisfaction

	Cost	Workers	All	Supply chain	With family	Customer service	Change management	Skills and ability	Quality (with family)
	Score	N=11	N=113	N=11	N=11	N=11	N=11	N=11	N=11
<b>Sharing and using people's knowledge for progress to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Sharing customer knowledge to make HSCA work by customers</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>The transfer of skills from business to production line to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Religious issues to resolve for HSCA to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Sharing enough money required to make the HSCA to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Respectful behaviour is needed for work for HSCA to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Working with other local organizations and community organisations required for HSCA to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12
<b>Working with religious and intercultural organisations required for HSCA to be successful</b>									
yes	3.1	3	4.2	4.1	3.9	3.2	3.1	3.1	3.2
no/grey	4.11	4.11	4.28	4.09	4.14	4.17	4.13	4.15	4.12

**Table A4.13. Member Rating of Organizational Performance – Predictors of Performance – by gender, age, and ethnicity**

Other member characteristics: age, 40-60; female; ethnic origin: African, 2nd degree; formerly foreign, non-state citizens											
	Male (n=12) M=42	Female (n=12) M=42	Spanish (n=12) M=42	English/Other (n=12) M=42	Non- Euro- Asian (n=12) M=42	Asian (n=12) M=42	White (n=12) M=42	Black (n=12) M=42	Hispanic (n=12) M=42	African (n=12) M=42	Middle East (n=12) M=42
<i>Managing and leading groups as needed by program requirements</i>											
men	32	32	34	36	34	31	34	34	31	31	34
women	4.11	4.11	4.75	4.83	4.83	4.50	4.50	4.67	4.50	4.75	4.83
<i>Planning, managing, and leading the organization effectively</i>											
men	31	31	34	33	33	31	34	34	31	31	34
women	4	3.83	4.67	4.75	4.67	4.33	4	4.75	4.67	4.75	4.67
<i>The delivery of quality job functions as needed by IBCA to its members</i>											
men	32	32	34	35	32	31	34	34	31	31	34
women	4.11	4.11	4.67	4.83	4.41	3.75	3.67	4.17	4.33	4.33	4.33
<i>Delivered projects as required by IBCA to its members</i>											
men	31	31	33	34	32	31	33	34	31	31	34
women	4.11	4.11	4.67	4.67	4.33	4.25	4.25	4.67	4.67	4.67	4.67
<i>Ensuring enough money as needed to make by IBCA to its members</i>											
men	32	32	33	34	33	31	34	34	31	31	34
women	4.11	4.11	4.67	4.67	4.33	4.25	4	4.67	4.67	4.67	4.67
<i>Promoting leadership at needed by program requirements</i>											
men	31	31	33	33	32	31	33	33	31	31	33
women	4.11	4.11	4.67	4.67	4.33	4.25	4.25	4.67	4.67	4.67	4.67
<i>Working with other local organizations and their governmental organizations as needed by IBCA to its members</i>											
men	32	32	33	33	33	31	33	33	31	31	33
women	4.11	4.11	4.67	4.67	4.33	4.25	4.25	4.67	4.67	4.67	4.67
<i>Working with national organizations and organizations as needed by IBCA to its members</i>											
men	31	31	33	33	33	32	33	33	31	31	33
women	4.11	4.11	4.67	4.67	4.33	4.25	4.25	4.67	4.67	4.67	4.67

**APPENDIX F**  
**INTERVIEW RESULTS**

**Table A3.1. Key and Characteristics of Variables Identified by Interview Results**

Statement (General variable or theme attributed to subjects as perceived)	Type of Variable	Specific Repre- sentations
BICA protects and manages the fragile ecosystems within the Bay Islands (Biodiversity management).	Outcome	Y1
BICA promotes sustainable economic development through the wise use and management of the Islands' natural resources.	Outcome	Y1
BICA protects environmental resources throughout the Bay Islands through education and community involvement.	Outcome	Y1
BICA conserves and manages the Islands' representative habitats and rare and endangered species.	Outcome	Y1
Overall BICA has not done much in terms of its educational goals (Achievement of overall representational goals/education given environmental objectives).	Overall Outcome	Y2
Overall BICA does what it says it is (Achievement of program objectives/goals).	Overall Outcome	Y1, Y2
BICA's environmental education programs have been successful (Programmatic performance).	Output	SI, Y1
BICA should do environmental education programs (Representation of program given resources, role and needs).	Output	SI
BICA has been able to raise money from local people and tourists.	Output	SI, Y1
BICA should raise money from local people and tourists.	Output	SI
BICA has been able to get funding for research in medicine and agriculture.	Output	SI, Y1
BICA should get funding for its activities and employ more people.	Output	SI
BICA has been able to work over the Islands' protected areas.	Output	SI, Y1
BICA should work over the Islands' protected areas.	Output	SI
BICA collects the garbage.	Output	SI, Y1

<u>WCA should refine the portfolio</u>	Output	323
<u>WCA should refine and expand its commercially focused activities</u>	Output	323, TH
<u>WCA should refine and expand its commercially focused activities</u>	Output	324
<u>WCA has existing management programs</u>	Output	325, TD
<u>WCA should have existing management programs</u>	Output	326
<u>Overall WCA does what it should do (Overall appropriateness of programs given organizational mission, role and needs)</u>	Overall Output	326, TH
<u>Overall WCA does what the Reg should not do. (Overall role and purpose does not fully fit with its external mandate)</u>	Overall Output	327
<u>Overall WCA does what it does best. (Programs reflect underlying competencies/advantage/mission of organization)</u>	Overall Output	328
<u>WCA is too small to do what the Reg should and it is in [Deployment of resources/Physical assets]</u>	Input/Inherent Functions	329
<u>When members are unhappy with WCA does members see benefits and feel satisfied (External member satisfaction)</u>	External Stakeholders	330
<u>When members are unhappy with WCA does members see benefits and feel satisfied (External member satisfaction)</u>	External Stakeholders	331
<u>The government and legal system make it easy for unrepresented people to form unrepresented groups. (Enabling or obstructing legal and regulatory administration)</u>	Institutional Context	332
<u>In WCA's case, the government and legal system are helpful to the organization (Degree of governmental cooperation with organization)</u>	Institutional Context	333
<u>Key members participate in group because of their function (Frequency to organize or stimulate)</u>	Institutional Context	334
<u>Key members understand the organizational effects of the things they contribute at the highest (Overall influence level related to organizational behavior)</u>	Institutional Context	335
<u>Key members understand the organizational effects of the things that are done at the lowest (Significance of organization to local society)</u>	Institutional Context/Nonentity Context	336

The people who BICA program have had enough training to do the job well (Skills and educational support)	Input External Environment	32%
Browsing will need power is needed to to oversee program and be accountable (Government or business capital)	Input Necessary Conditions	30%
BICA members have common interests (Motivation for members)	Internal Stimulus	32%
Browsing resources or capacity is needed to be sure BICA will be successful	Necessary Conditions	32%
BICA members have common interests with the rest of the members of the Bay Islands (Social norms recognized and accepted)	Internal Stimulus	30%
With BICA holding a生命力 by many Bay Members, (Communication, trust, significance of role a good society)	External Environment	32%
BICA needs enough time and effort according the community skills (External environment participation, interest from support)	External Environment	32%
Most Bay Members agree with BICA's programs and values (Communication, Organization, interest based support)	Individual Character	32%
The support of most Bay Members is needed for BICA to be successful	Necessary Conditions	32%
BICA members are closer to the organization, (Proximity)	Internal Stimulus	32%
It is easy for members to participate in BICA if they need it (Communication, Rewards, participation)	Internal Stimulus	32%
BICA's decisions are made by one or a few individuals (Decentralization, structure)	External Environment	32%
Members that like to make suggestions to BICA (Familiarity of information flow structure)	Internal Stimulus	32%
BICA communication with the membership regularly (External environment and decision making)	External Environment	32%
BICA is politically powerful in the Bay Islands and in Honduras (Organizational influence)	External Environment	32%
Political power is needed for BICA to be successful	Necessary Conditions	32%

BUCA has a lot of money to work with (Abundance and availability of financing/Financial Capital)	Input Internal Structure	20%
The big enough money is needed as much for BUCA to be successful. (Quantity of Financial Capital)	Input Monetary Conditions	10%
The leaders of BUCA are powerful people in the Bay Islands (Cultural Leadership)	Internal Resources	10%
Potential leaders/players needed for BUCA going successful	Monetary Conditions	20%
BUCA works well with other local organisations, citizens and local government agencies. (External Relations)	External Relations	20%
Working with other local government and non-governmental organisations is needed for BUCA to be successful	Monetary Conditions	20%
BUCA works well with national and international organisations and the national government. (External Relations)	External Relations	20%
Working with national and international organisations as needed for BUCA to be successful	Monetary Conditions	20%
BUCA focus on group or individual values as oppose to environmental values. (Personality/Attitudes/Characteristics)	External Relations	20%
Most themes usually talk about the same amount of money and the same cultural background as you do. (Social and economic resources)	Institutional Context	20%
What is good for the environment is good for the people in the Bay Islands. (Physical/Natural resources from interdependence)	Institutional Context	20%
What is good for business is good for everyone in the Bay Islands (Business/interdependence)	Institutional Context	20%

Table A/11. Correlations Among Quantitative Items (Question 5).

Comparison Variable/ Response Value	Response Variable (5) (Independent Variables)							
	T1	T2	T10	T11	T12	T13	T14	T15
Response	.24*	.16*	.14*	.15*	.11	-.17*	.16*	-.16
T11	.04	.04	-.02	.02	-.04	.03	.03	.03
T12	.08	.05	-.01	.07*	-.02	.02	.07*	.07*
T13	-.16	.11	-.12	.08	-.12	.03	-.16	-.14
T14	-.12	.01	-.04	-.07*	.01	-.14	-.15	.01
T15	.08	.08	-.05	-.07*	.01	.03	.02	.07*
Pivot	.07	.10	.06	.06	.06	.12*	.10*	.10*
<i>Note:</i> *Significant at the .05 level.								
Confidence	.01	.00	.00	.00	.00	-.01	.00	.00
Significance	<i>significance significant significance</i>							
Discrimination	.11	.21	.19	.16	.16	.18	.18	.14
Degrees of Freedom	.11	.23	.19	.16	.16	.18	.18	.14

\*With two-tailed test based on 1000 individual test statistics.

Table A.2. Correlations Between Measures and Indexes (continued)

Independent Variable Potential Value	Dependent Variables (Independent Variables)					
	T1	T2	T3	T4	T5	T6
Latitude	.10	-.10	.21*	.10	.20	.10
EDU	.08	.05	.10	.03	.09	.07
SES	.11	.10	.11	.07	.07	.03
PER	-.10	.01	.20	.03	-.11	.07
PERI	.09	.07	.11	.00	.01	.01
PERM	.07	.07	.10	.07	.07	.01
PERP	.10	.10	.11	.10	.10	.10
<i>Note:</i> <i>n</i> = 402; <i>p</i> < .05.						
Correlations	.77*	.88*	not significant			
Observations	107	117	117	117	117	117
Dependent Variables	21	21	21	21	21	21

\*p < .05, two-tailed test. \*\*p < .01, two-tailed test.

Table A.1. Correlations Among Outcomes and Demographic Variables.

Independent Variable Variable Value	T1	T2	T3	T4	T5	T6
	Dependent Variable (Interpreting outcomes)					
Score	-0.79	-0.81	-0.77	-0.77	-0.84	-0.84
P1	-0.07*	-0.01	0.06	-0.09	0.00	-0.02
P2	-0.04	0.09	-0.01	-0.03	-0.03	0.01
P3	0.02	0.02**	0.01**	-0.01**	0.00	0.00
P4	-0.01	-0.01	0.00	0.02	0.02	0.11
P5	0.02	0.00	0.01	0.00	-0.13	0.01
P6	-0.09	0.01	-0.01	-0.05	0.01	-0.07
P7	0.06	0.00	0.01	-0.01**	0.02**	0.01
P8	0.11	0.02**	0.01	-0.07	-0.05	0.11
P9	0.03	0.01	0.01	0.00	0.00	0.00
P10	-0.05	-0.01	0.01	-0.01	-0.01	-0.01
Condition	0.00	0.00	0.00	0.00	0.00	0.00
Change	0.0	0.0	0.0	0.0	0.0	0.0
Depressed Person	0.0	0.0	0.0	0.0	0.0	0.0

\*With condition kept fixed. \*\*With condition kept in, p < 0.050.

Table AII.2. Descriptives Amongst Descent and Degree (continued)

Descent Variable Version Value	Descent Variable (cont.)						
	T1	T2	T3	T4	T5	T6	T7
Descent	0.01	-0.01	0.01	-0.01	0.01	-0.01	0.01
T1	-0.01 <sup>a</sup>	-0.01	0.01	-0.01	0.01	-0.01	0.01
T2	0.01	-0.01	-0.01	-0.01	0.01	0.01	-0.01
T3	0.01	-0.01 <sup>b</sup>	0.01	0.01	0.01	0.01	-0.01
T4	0.01	-0.01 <sup>b</sup>	0.01	-0.01	0.01	0.01	-0.01
T5	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
T6	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
T7	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
100%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
200%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
300%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
400%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
500%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
600%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
700%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
800%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
900%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1000%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1100%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1200%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1300%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1400%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1500%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1600%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1700%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1800%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
1900%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
2000%	0.01	-0.01	0.01	-0.01	0.01	0.01	-0.01
Condition	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Observation	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Degree of Freedom	0.01	0.01	0.01	0.01	0.01	0.01	0.01

<sup>a</sup> -0.01 (standardized beta value); <sup>b</sup> -0.01 (standardized beta value).

Table 11.6 *Geographic Areas, Common Names and Local Technical Names of Fungi*

Dependent Variables of Independent Economic Determinants								
Independent Variable	Y1	Y2	Y13	Y12	Y11	Y10	Y9	Y8
Interest	-0.25	-0.17	-0.18	-0.16	-0.18	-0.19	-0.14	-0.11
GDP	-0.12	-0.08	-0.07	-0.11	-0.12	-0.11	-0.09	-0.08
FDI	-0.15	-0.12	-0.10	-0.12	-0.14	-0.14	-0.10	-0.11
Oil	-0.19 <sup>*</sup>	-0.14	-0.17 <sup>*</sup>	-0.16 <sup>*</sup>	-0.19 <sup>*</sup>	-0.19	-0.16 <sup>*</sup>	-0.17 <sup>*</sup>
PPG	-0.17	-0.13	-0.15 <sup>*</sup>	-0.15	-0.18	-0.17	-0.15 <sup>*</sup>	-0.16
PIB	-0.16	-0.12	-0.14	-0.15	-0.16	-0.15	-0.13	-0.14
PIA	-0.13	-0.11	-0.13	-0.14	-0.15	-0.14	-0.11	-0.12
PIE	-0.18	-0.14	-0.16 <sup>*</sup>	-0.17 <sup>*</sup>	-0.19	-0.18	-0.16 <sup>*</sup>	-0.17
PII	-0.17	-0.13	-0.15 <sup>*</sup>	-0.16 <sup>*</sup>	-0.18	-0.17	-0.14	-0.15
PIR	-0.19	-0.15	-0.17 <sup>*</sup>	-0.18 <sup>*</sup>	-0.20	-0.19	-0.17 <sup>*</sup>	-0.18
PIF	-0.17	-0.13	-0.15 <sup>*</sup>	-0.16 <sup>*</sup>	-0.18	-0.17	-0.14	-0.15
Total	-0.19	-0.15	-0.17 <sup>*</sup>	-0.18 <sup>*</sup>	-0.19	-0.18	-0.17 <sup>*</sup>	-0.18
Confidence	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Opinion	opinion	opinion	opinion	opinion	opinion	opinion	opinion	opinion
Distribution	0.12	0.16	0.14	0.15	0.13	0.15	0.14	0.15
Degrees of Freedom	27	28	27	27	26	25	27	26

Table A1.2 Correlations Among Variables and Intercorrelations Among Dependent Variables

Independent Variable	Dependent Variables (Independent Observations)					
	T1	T2	T3	T4	T5	T6
Intercept	1.00	0.00	0.00	0.00	0.00	0.00
T21	-0.23	1.00	0.00	0.00	0.00	0.00
T22	-0.19	-0.11 <sup>*</sup>	1.00	0.00	0.00	0.00
T23	0.28 <sup>*</sup>	0.25 <sup>*</sup>	0.11 <sup>*</sup>	1.00	0.00	0.00
T24	0.19	0.00	0.00	0.00	0.00	0.00
T25	-0.18	-0.05	0.00	0.00 <sup>*</sup>	0.00	0.00
T26	0.00	0.00	0.00	0.00	0.00	0.00
T27	-0.01	0.00	-0.05	0.00	0.00	0.00
T28	0.11	-0.01	0.11 <sup>*</sup>	-0.01	0.00	0.00
Class	0.00	0.00	0.00	0.00	0.00	0.00
<i>Note:</i> <sup>*</sup> Significant level (1-tail). 1-0.05% confidence level or greater (p<0.05).						
Conditions	0.00	0.00	0.00	0.00	0.00	0.00
Observations	0 <sup>a</sup>	11	10	22	26	14
Degrees of freedom	28	28	27	14	21	28

Table A.1 Correlations Among Observed and Partially Standardized Variables (Appendix D)

Independent Variable Number	Dependent Variables (or Interactions) Estimated							
	T1	T2	T3	T4	T5	T6	T7	T8
Region	-0.11	-0.04	0.00	0.00	-0.01	-0.14	0.01	0.01
R21	-0.03	-0.07	0.04	0.02	0.02	0.02	0.00	0.01
R22	0.19	-0.08	-0.02	0.02	0.04 <sup>a</sup>	-0.11 <sup>a</sup>	-0.01 <sup>a</sup>	0.07
R23	-0.16	0.01	0.00	0.02	0.02	0.04 <sup>a</sup>	0.02	0.02 <sup>a</sup>
R24	0.08	-0.02	-0.01 <sup>a</sup>	-0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01	0.00
R25	-0.07	0.04	0.00	0.02 <sup>a</sup>	0.02 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R26	0.06	-0.01	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01	0.00
R27	0.11	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R28	0.11	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R29	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R30	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R31	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R32	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R33	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R34	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R35	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R36	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R37	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R38	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R39	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
R40	0.09	-0.04	0.01	0.01 <sup>a</sup>	0.01 <sup>a</sup>	0.04 <sup>a</sup>	0.01 <sup>a</sup>	0.01 <sup>a</sup>
Condition	**	**	**	0.0002	0.0002	0.0001	0.0001	0.0001
Distribution	11	12	13	14	15	16	17	18
Degrees of Freedom	2	3	3	3	3	3	3	3

\* =0.05 level of significance; \*\* =0.01 level of significance (two-tailed).

Table A2.1. Статистични измервания на времето и времето на промяна (дължина).

Измерване Variable Parameter Value	Дължина (Length) в микрометри (micrometers)					
	R1	R2	T1	T2	S1	T3
Лъчепр.	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
X11	-0.73	0.00	-0.11	-0.24	0.00	-0.04
Z12	0.11	-0.05	0.11	0.15	-0.05	0.11
X24	0.00	0.00	-0.05	-0.05	0.00	-0.05
Z26	0.11	-0.05	-0.20	0.05	-0.10	0.11
Z28	-0.04	0.00	0.01	-0.05	0.00	0.04
Z31	-0.07	0.00	0.01	-0.05	0.00	-0.05
Z33	0.07	0.00	0.01	0.01	0.00	0.05
Z35	0.10	0.00	0.01	-0.05	-0.04	0.10
Z36	-0.04	-0.05	0.01	0.00	-0.05	-0.04
Z37	0.11	-0.05	0.01	0.00	-0.05	-0.04
Z38	0.00	0.00	-0.05	-0.05	0.00	0.00
Z39	0.00	0.00	-0.05	-0.05	0.00	0.00
Z41	0.00	0.00	-0.05	0.01	0.00	-0.05
Разн.	0.23	0.00	0.01	0.00	0.11	0.10
Същност на измерванията (本质性 of measurements) на измерванията (本质性 of measurements)						
Оценка	11	11	11	11	11	11
Степен на достоверност	1	2	2	2	1	1

1 = 100% достоверност (100% confidence level); 2 = 50% достоверност (50% confidence level).

Table A5.10: Correlations Among Changes in Institutional Structure Variables

Dependent Variable	Independent Variables of Institutional Transition Probability							
	SI	VI	VI*	PII	TLZ	SIZ	PII*	SI*
Success <sup>a</sup>	-0.02	0.11	0.03	0.03	0.02	0.13	0.12	0.02
VI <sub>10</sub>	0.00	0.04	0.00	-0.01	0.01	0.05	-0.01	0.01
XII <sub>10</sub>	-0.13	0.07	-0.05	0.12	0.01	-0.01	-0.01	-0.07
XII <sub>10</sub> *	0.16	0.14	0.03	0.00	0.06	0.01	0.07	0.01
SLT <sub>10</sub>	-0.05	-0.03	-0.05	0.01	0.02	0.00	-0.02	-0.02
SLT <sub>10</sub> *	0.12	0.11	0.03	0.02	0.01	0.05	-0.01	0.01
XII <sub>10</sub> SLT <sub>10</sub>	0.07	0.13	0.06	0.12	0.11	0.04	0.13	0.07
XII <sub>10</sub> SLT <sub>10</sub> *	-0.06	-0.07	-0.05	0.00	0.02	-0.02	-0.01	-0.04
XII <sub>10</sub> SLT <sub>10</sub> SLT <sub>10</sub> *	0.01	0.02	0.02	-0.01	0.02	0.00	0.00	0.02
XII <sub>10</sub> SLT <sub>10</sub> SLT <sub>10</sub> SLT <sub>10</sub> *	0.01	0.02	0.02	-0.01	0.02	0.00	0.00	0.02
Coeficients	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Observations	39	39	39	39	39	39	39	39
Adj R-sq <sup>b</sup>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<sup>a</sup> = 0.05% significance level (p-value) <sup>b</sup> = 0.7% confidence level or greater (1 - α)

Table A5.11 Correlations Among Outcome and Independent Variables (Equation 1)

Independent Variable Value	T1	T2	T3	T4	T5	T6
	Dependent Variables of Independent Variables (Equation 1)					
Adolescent Personality Value						
Adolescent ECA	.923	.952	.947	.874	.145	.251
Adolescent SES	.887	.948	.935 <sup>a</sup>	.941	.458	.181
Adolescent SES <sup>b</sup>	.932	.944	.939	.938	.182	.119
Adolescent SES <sup>c</sup>	.920 <sup>b</sup>	.941	.934	.941	.458	.020
Adolescent SES <sup>d</sup>	.918	.933	.933 <sup>b</sup>	.937 <sup>b</sup>	.458	.114
Adolescent SES <sup>e</sup>	.932	.933 <sup>b</sup>	.931 <sup>b</sup>	.931	.034	.123
Adolescent SES <sup>f</sup>	.933 <sup>b</sup>	.934	.933 <sup>b</sup>	.932	.329	.121 <sup>b</sup>
Adolescent SES <sup>g</sup>	.932	.933	.933 <sup>b</sup>	.931	.111	.020
Adolescent SES <sup>h</sup>	.934	.936	.935	.933	.528 <sup>b</sup>	.027 <sup>b</sup>
Adolescent SES <sup>i</sup>	.933	.933	.935 <sup>b</sup>	.932	.111	.018
Adolescent SES <sup>j</sup>	.935 <sup>b</sup>	.933	.934	.931	.347	.109
Adolescent SES <sup>k</sup>	.935 <sup>b</sup>	.933	.934	.931	.111	.024
Adolescent SES <sup>l</sup>	.943	.947	.941	.742	.111	.104
Condition	.601 <sup>b</sup>	.610 <sup>b</sup>	.610 <sup>b</sup>	.610 <sup>b</sup>	.610 <sup>b</sup>	.610 <sup>b</sup>
Characteristics	.35	.34	.34	.34	.34	.34
Age-related Personality	.34	.33	.33	.33	.30	.30

<sup>a</sup>Significant at .05 level. <sup>b</sup>Significant at .01 level.

**APPENDIX I**  
**FORMAL SPECIFICATION OF ESTIMATED RELATIONSHIPS**

**Table I.** A relationship comparison between ECO<sub>i,j</sub>(output) and its inputs

Dependent Variable	Independent Variables							
	$\beta_{01} = \beta_0^1 + \beta_1^1 X_1 + \beta_2^1 X_2 + \beta_3^1 X_3 + \beta_4^1 X_4 + \beta_5^1 X_5 + \beta_6^1 X_6 + \beta_7^1 X_7$	$\beta_{02} = \beta_0^2 + \beta_1^2 X_1 + \beta_2^2 X_2 + \beta_3^2 X_3 + \beta_4^2 X_4 + \beta_5^2 X_5 + \beta_6^2 X_6 + \beta_7^2 X_7$	$\beta_{03} = \beta_0^3 + \beta_1^3 X_1 + \beta_2^3 X_2 + \beta_3^3 X_3 + \beta_4^3 X_4 + \beta_5^3 X_5 + \beta_6^3 X_6 + \beta_7^3 X_7$	$\beta_{04} = \beta_0^4 + \beta_1^4 X_1 + \beta_2^4 X_2 + \beta_3^4 X_3 + \beta_4^4 X_4 + \beta_5^4 X_5 + \beta_6^4 X_6 + \beta_7^4 X_7$	$\beta_{05} = \beta_0^5 + \beta_1^5 X_1 + \beta_2^5 X_2 + \beta_3^5 X_3 + \beta_4^5 X_4 + \beta_5^5 X_5 + \beta_6^5 X_6 + \beta_7^5 X_7$	$\beta_{06} = \beta_0^6 + \beta_1^6 X_1 + \beta_2^6 X_2 + \beta_3^6 X_3 + \beta_4^6 X_4 + \beta_5^6 X_5 + \beta_6^6 X_6 + \beta_7^6 X_7$	$\beta_{07} = \beta_0^7 + \beta_1^7 X_1 + \beta_2^7 X_2 + \beta_3^7 X_3 + \beta_4^7 X_4 + \beta_5^7 X_5 + \beta_6^7 X_6 + \beta_7^7 X_7$	$\beta_{08} = \beta_0^8 + \beta_1^8 X_1 + \beta_2^8 X_2 + \beta_3^8 X_3 + \beta_4^8 X_4 + \beta_5^8 X_5 + \beta_6^8 X_6 + \beta_7^8 X_7$
$\beta_{01} = \beta_0^1 + \beta_1^1 X_1 + \beta_2^1 X_2 + \beta_3^1 X_3 + \beta_4^1 X_4 + \beta_5^1 X_5 + \beta_6^1 X_6 + \beta_7^1 X_7$								
$\beta_{02} = \beta_0^2 + \beta_1^2 X_1 + \beta_2^2 X_2 + \beta_3^2 X_3 + \beta_4^2 X_4 + \beta_5^2 X_5 + \beta_6^2 X_6 + \beta_7^2 X_7$								
$\beta_{03} = \beta_0^3 + \beta_1^3 X_1 + \beta_2^3 X_2 + \beta_3^3 X_3 + \beta_4^3 X_4 + \beta_5^3 X_5 + \beta_6^3 X_6 + \beta_7^3 X_7$								
$\beta_{04} = \beta_0^4 + \beta_1^4 X_1 + \beta_2^4 X_2 + \beta_3^4 X_3 + \beta_4^4 X_4 + \beta_5^4 X_5 + \beta_6^4 X_6 + \beta_7^4 X_7$								
$\beta_{05} = \beta_0^5 + \beta_1^5 X_1 + \beta_2^5 X_2 + \beta_3^5 X_3 + \beta_4^5 X_4 + \beta_5^5 X_5 + \beta_6^5 X_6 + \beta_7^5 X_7$								
$\beta_{06} = \beta_0^6 + \beta_1^6 X_1 + \beta_2^6 X_2 + \beta_3^6 X_3 + \beta_4^6 X_4 + \beta_5^6 X_5 + \beta_6^6 X_6 + \beta_7^6 X_7$								
$\beta_{07} = \beta_0^7 + \beta_1^7 X_1 + \beta_2^7 X_2 + \beta_3^7 X_3 + \beta_4^7 X_4 + \beta_5^7 X_5 + \beta_6^7 X_6 + \beta_7^7 X_7$								
$\beta_{08} = \beta_0^8 + \beta_1^8 X_1 + \beta_2^8 X_2 + \beta_3^8 X_3 + \beta_4^8 X_4 + \beta_5^8 X_5 + \beta_6^8 X_6 + \beta_7^8 X_7$								

Note: OI = output index;  $\beta_0^i$  = intercept parameter;  $X_i$  = input variable;  $\beta_j^i$  = output coefficient;  $i =$  output number;  $j =$  input;  $t =$  time period or criterion.

Appendix 3. A relationship might between RGA scores and its antecedents.

Dependent Variable	Independent Variables							
	$\beta_0$	$\beta_1$	$\beta_2$	$\beta_3$	$\beta_4$	$\beta_5$	$\beta_6$	$\beta_7$
OC1 = $\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 P_3 + \beta_4 P_4 + \beta_5 P_5 + \beta_6 P_6 + \beta_7 P_7$	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OC2 = $\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 P_3 + \beta_4 P_4 + \beta_5 P_5 + \beta_6 P_6 + \beta_7 P_7$	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OC3 = $\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 P_3 + \beta_4 P_4 + \beta_5 P_5 + \beta_6 P_6 + \beta_7 P_7$	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OC4 = $\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 P_3 + \beta_4 P_4 + \beta_5 P_5 + \beta_6 P_6 + \beta_7 P_7$	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OC5 = $\beta_0 + \beta_1 P_1 + \beta_2 P_2 + \beta_3 P_3 + \beta_4 P_4 + \beta_5 P_5 + \beta_6 P_6 + \beta_7 P_7$	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: OC 0 = dependent variable; OC 1 = overall performance;  $P_1$  to  $P_7$  = independent parameters;  $\beta_0$ ,  $\beta_1$  to  $\beta_7$  = regression coefficient;  $n$  = number of variables;  $R^2$  = coefficient of determination.

**Appendix 3.** A relationship matrix between the quality of RICA = output and the evaluation of its potential outcomes

Dependent Variable	Independent Variables						
	OC1 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	OC2 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	OC3 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	OC4 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	OC5 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	OC6 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$	
OC1 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							
OC2 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							
OC3 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							
OC4 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							
OC5 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							
OC6 = $\beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 D_6 + \beta_7 D_7 + \beta_8 D_8 + \beta_9 D_9 + \beta_{10} D_{10}$							

Key: OC = outcome number; OC1 = overall performance;  $\beta_i$  = estimated parameter;  $D_j$  = output number;  $i,j =$  related number; \* = hypothesis number; OC = output;  $i,j =$  unbalanced variables.

**Appendix 4.** A relationship matrix between the approximate values of RGA's outputs and the relevant plant performance measures.

Response Variable	Independent Variables				
	$R_{\text{G}1} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	$R_{\text{G}2} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	$R_{\text{G}3} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	$R_{\text{G}4} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	$R_{\text{G}5} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$
$R_{\text{G}1} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	1	0	0	0	0
$R_{\text{G}2} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	0	1	0	0	0
$R_{\text{G}3} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	0	0	1	0	0
$R_{\text{G}4} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	0	0	0	1	0
$R_{\text{G}5} = \beta_0 + \beta_1 D_1 + \beta_2 D_2 + \beta_3 D_3 + \beta_4 D_4 + \beta_5 D_5 + \beta_6 AD_1 + \beta_7 AD_2 + \beta_8 AD_3 + \beta_9 AD_4 + \beta_{10} AD_5 + \beta_{11}$	0	0	0	0	1

Key GOF = goodness of fit; GOF1 = overall performance,  $\beta_0$  = constant parameter,  $\beta_i$  = parameter number,  $D_j$  = output number,  $i =$  response variable,  $j =$  response number,  $AD_i$  = response measure of output,  $i =$  response measure.

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Dependent Variable	Independent Variables					
	$\beta_1$	$\beta_2$	$\beta_3$	$\beta_4$	$\beta_5$	$\beta_6$
Q1 =	$\beta_1^1 + \frac{\beta_2^1}{\beta_2^1/\beta_1^1} + \frac{\beta_3^1}{\beta_3^1/\beta_1^1} + \frac{\beta_4^1}{\beta_4^1/\beta_1^1} + \frac{\beta_5^1}{\beta_5^1/\beta_1^1} + \frac{\beta_6^1}{\beta_6^1/\beta_1^1}$					
Q2 =	$\beta_1^2 + \frac{\beta_2^2}{\beta_2^2/\beta_1^2} + \frac{\beta_3^2}{\beta_3^2/\beta_1^2} + \frac{\beta_4^2}{\beta_4^2/\beta_1^2} + \frac{\beta_5^2}{\beta_5^2/\beta_1^2} + \frac{\beta_6^2}{\beta_6^2/\beta_1^2}$					
Q3 =	$\beta_1^3 + \frac{\beta_2^3}{\beta_2^3/\beta_1^3} + \frac{\beta_3^3}{\beta_3^3/\beta_1^3} + \frac{\beta_4^3}{\beta_4^3/\beta_1^3} + \frac{\beta_5^3}{\beta_5^3/\beta_1^3} + \frac{\beta_6^3}{\beta_6^3/\beta_1^3}$					
Q4 =	$\beta_1^4 + \frac{\beta_2^4}{\beta_2^4/\beta_1^4} + \frac{\beta_3^4}{\beta_3^4/\beta_1^4} + \frac{\beta_4^4}{\beta_4^4/\beta_1^4} + \frac{\beta_5^4}{\beta_5^4/\beta_1^4} + \frac{\beta_6^4}{\beta_6^4/\beta_1^4}$					
Q5 =	$\beta_1^5 + \frac{\beta_2^5}{\beta_2^5/\beta_1^5} + \frac{\beta_3^5}{\beta_3^5/\beta_1^5} + \frac{\beta_4^5}{\beta_4^5/\beta_1^5} + \frac{\beta_5^5}{\beta_5^5/\beta_1^5} + \frac{\beta_6^5}{\beta_6^5/\beta_1^5}$					
Q6 =	$\beta_1^6 + \frac{\beta_2^6}{\beta_2^6/\beta_1^6} + \frac{\beta_3^6}{\beta_3^6/\beta_1^6} + \frac{\beta_4^6}{\beta_4^6/\beta_1^6} + \frac{\beta_5^6}{\beta_5^6/\beta_1^6} + \frac{\beta_6^6}{\beta_6^6/\beta_1^6}$					
Q7 =	$\beta_1^7 + \frac{\beta_2^7}{\beta_2^7/\beta_1^7} + \frac{\beta_3^7}{\beta_3^7/\beta_1^7} + \frac{\beta_4^7}{\beta_4^7/\beta_1^7} + \frac{\beta_5^7}{\beta_5^7/\beta_1^7} + \frac{\beta_6^7}{\beta_6^7/\beta_1^7}$					
Q8 =	$\beta_1^8 + \frac{\beta_2^8}{\beta_2^8/\beta_1^8} + \frac{\beta_3^8}{\beta_3^8/\beta_1^8} + \frac{\beta_4^8}{\beta_4^8/\beta_1^8} + \frac{\beta_5^8}{\beta_5^8/\beta_1^8} + \frac{\beta_6^8}{\beta_6^8/\beta_1^8}$					

Hypotheses 5: A relationship exists between HCA's financial ratios and the resilience of the modelled companies.

Depended Variable	Independent Variables					
	$B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$
OCII = $B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$	$B_7 \beta_7^2 +$
OCII = $B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$	$B_7 \beta_7^2 +$
OCII = $B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$	$B_7 \beta_7^2 +$
OCII = $B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$	$B_7 \beta_7^2 +$
OCII = $B_1 \beta_1^2 +$	$B_2 \beta_2^2 +$	$B_3 \beta_3^2 +$	$B_4 \beta_4^2 +$	$B_5 \beta_5^2 +$	$B_6 \beta_6^2 +$	$B_7 \beta_7^2 +$

Note: OCII = output ratio; OCII = overall performance;  $\beta_i^2$  = standard deviation;  $\beta_i$  = independent factor;  $\beta_i^2$  = variance number;  $i =$  hypothesis number;  $B_i =$  standard deviation of HCA;  $\beta_i =$  unadjusted variable.

Table 1. A summary of the 2000 PCA cluster solution and its regions.

Depend 1 Variables	Independent Variables					
O1 = $\beta_0^1 + \beta_1 T_{11} + \beta_2 T_{12} + \beta_3 T_{13} + \beta_4 T_{14} + \beta_5 T_{15} + \beta_6 T_{16}$	$\beta_0^1 T_{11} + \beta_1^2 T_{12} + \beta_2^2 T_{13} + \beta_3^2 T_{14} + \beta_4^2 T_{15} + \beta_5^2 T_{16}$	$\beta_0^1 T_{11} + \beta_1^3 T_{12} + \beta_2^3 T_{13} + \beta_3^3 T_{14} + \beta_4^3 T_{15} + \beta_5^3 T_{16}$	$\beta_0^1 T_{11} + \beta_1^4 T_{12} + \beta_2^4 T_{13} + \beta_3^4 T_{14} + \beta_4^4 T_{15} + \beta_5^4 T_{16}$	$\beta_0^1 T_{11} + \beta_1^5 T_{12} + \beta_2^5 T_{13} + \beta_3^5 T_{14} + \beta_4^5 T_{15} + \beta_5^5 T_{16}$	$\beta_0^1 T_{11} + \beta_1^6 T_{12} + \beta_2^6 T_{13} + \beta_3^6 T_{14} + \beta_4^6 T_{15} + \beta_5^6 T_{16}$	$\beta_0^1 T_{11} + \beta_1^7 T_{12} + \beta_2^7 T_{13} + \beta_3^7 T_{14} + \beta_4^7 T_{15} + \beta_5^7 T_{16}$
O2 = $\beta_0^2 + \beta_1 T_{21} + \beta_2 T_{22} + \beta_3 T_{23} + \beta_4 T_{24} + \beta_5 T_{25} + \beta_6 T_{26}$	$\beta_0^2 T_{21} + \beta_1^2 T_{22} + \beta_2^2 T_{23} + \beta_3^2 T_{24} + \beta_4^2 T_{25} + \beta_5^2 T_{26}$	$\beta_0^2 T_{21} + \beta_1^3 T_{22} + \beta_2^3 T_{23} + \beta_3^3 T_{24} + \beta_4^3 T_{25} + \beta_5^3 T_{26}$	$\beta_0^2 T_{21} + \beta_1^4 T_{22} + \beta_2^4 T_{23} + \beta_3^4 T_{24} + \beta_4^4 T_{25} + \beta_5^4 T_{26}$	$\beta_0^2 T_{21} + \beta_1^5 T_{22} + \beta_2^5 T_{23} + \beta_3^5 T_{24} + \beta_4^5 T_{25} + \beta_5^5 T_{26}$	$\beta_0^2 T_{21} + \beta_1^6 T_{22} + \beta_2^6 T_{23} + \beta_3^6 T_{24} + \beta_4^6 T_{25} + \beta_5^6 T_{26}$	$\beta_0^2 T_{21} + \beta_1^7 T_{22} + \beta_2^7 T_{23} + \beta_3^7 T_{24} + \beta_4^7 T_{25} + \beta_5^7 T_{26}$
O3 = $\beta_0^3 + \beta_1 T_{31} + \beta_2 T_{32} + \beta_3 T_{33} + \beta_4 T_{34} + \beta_5 T_{35} + \beta_6 T_{36}$	$\beta_0^3 T_{31} + \beta_1^2 T_{32} + \beta_2^2 T_{33} + \beta_3^2 T_{34} + \beta_4^2 T_{35} + \beta_5^2 T_{36}$	$\beta_0^3 T_{31} + \beta_1^3 T_{32} + \beta_2^3 T_{33} + \beta_3^3 T_{34} + \beta_4^3 T_{35} + \beta_5^3 T_{36}$	$\beta_0^3 T_{31} + \beta_1^4 T_{32} + \beta_2^4 T_{33} + \beta_3^4 T_{34} + \beta_4^4 T_{35} + \beta_5^4 T_{36}$	$\beta_0^3 T_{31} + \beta_1^5 T_{32} + \beta_2^5 T_{33} + \beta_3^5 T_{34} + \beta_4^5 T_{35} + \beta_5^5 T_{36}$	$\beta_0^3 T_{31} + \beta_1^6 T_{32} + \beta_2^6 T_{33} + \beta_3^6 T_{34} + \beta_4^6 T_{35} + \beta_5^6 T_{36}$	$\beta_0^3 T_{31} + \beta_1^7 T_{32} + \beta_2^7 T_{33} + \beta_3^7 T_{34} + \beta_4^7 T_{35} + \beta_5^7 T_{36}$
O4 = $\beta_0^4 + \beta_1 T_{41} + \beta_2 T_{42} + \beta_3 T_{43} + \beta_4 T_{44} + \beta_5 T_{45} + \beta_6 T_{46}$	$\beta_0^4 T_{41} + \beta_1^2 T_{42} + \beta_2^2 T_{43} + \beta_3^2 T_{44} + \beta_4^2 T_{45} + \beta_5^2 T_{46}$	$\beta_0^4 T_{41} + \beta_1^3 T_{42} + \beta_2^3 T_{43} + \beta_3^3 T_{44} + \beta_4^3 T_{45} + \beta_5^3 T_{46}$	$\beta_0^4 T_{41} + \beta_1^4 T_{42} + \beta_2^4 T_{43} + \beta_3^4 T_{44} + \beta_4^4 T_{45} + \beta_5^4 T_{46}$	$\beta_0^4 T_{41} + \beta_1^5 T_{42} + \beta_2^5 T_{43} + \beta_3^5 T_{44} + \beta_4^5 T_{45} + \beta_5^5 T_{46}$	$\beta_0^4 T_{41} + \beta_1^6 T_{42} + \beta_2^6 T_{43} + \beta_3^6 T_{44} + \beta_4^6 T_{45} + \beta_5^6 T_{46}$	$\beta_0^4 T_{41} + \beta_1^7 T_{42} + \beta_2^7 T_{43} + \beta_3^7 T_{44} + \beta_4^7 T_{45} + \beta_5^7 T_{46}$
O5 = $\beta_0^5 + \beta_1 T_{51} + \beta_2 T_{52} + \beta_3 T_{53} + \beta_4 T_{54} + \beta_5 T_{55} + \beta_6 T_{56}$	$\beta_0^5 T_{51} + \beta_1^2 T_{52} + \beta_2^2 T_{53} + \beta_3^2 T_{54} + \beta_4^2 T_{55} + \beta_5^2 T_{56}$	$\beta_0^5 T_{51} + \beta_1^3 T_{52} + \beta_2^3 T_{53} + \beta_3^3 T_{54} + \beta_4^3 T_{55} + \beta_5^3 T_{56}$	$\beta_0^5 T_{51} + \beta_1^4 T_{52} + \beta_2^4 T_{53} + \beta_3^4 T_{54} + \beta_4^4 T_{55} + \beta_5^4 T_{56}$	$\beta_0^5 T_{51} + \beta_1^5 T_{52} + \beta_2^5 T_{53} + \beta_3^5 T_{54} + \beta_4^5 T_{55} + \beta_5^5 T_{56}$	$\beta_0^5 T_{51} + \beta_1^6 T_{52} + \beta_2^6 T_{53} + \beta_3^6 T_{54} + \beta_4^6 T_{55} + \beta_5^6 T_{56}$	$\beta_0^5 T_{51} + \beta_1^7 T_{52} + \beta_2^7 T_{53} + \beta_3^7 T_{54} + \beta_4^7 T_{55} + \beta_5^7 T_{56}$
O6 = $\beta_0^6 + \beta_1 T_{61} + \beta_2 T_{62} + \beta_3 T_{63} + \beta_4 T_{64} + \beta_5 T_{65} + \beta_6 T_{66}$	$\beta_0^6 T_{61} + \beta_1^2 T_{62} + \beta_2^2 T_{63} + \beta_3^2 T_{64} + \beta_4^2 T_{65} + \beta_5^2 T_{66}$	$\beta_0^6 T_{61} + \beta_1^3 T_{62} + \beta_2^3 T_{63} + \beta_3^3 T_{64} + \beta_4^3 T_{65} + \beta_5^3 T_{66}$	$\beta_0^6 T_{61} + \beta_1^4 T_{62} + \beta_2^4 T_{63} + \beta_3^4 T_{64} + \beta_4^4 T_{65} + \beta_5^4 T_{66}$	$\beta_0^6 T_{61} + \beta_1^5 T_{62} + \beta_2^5 T_{63} + \beta_3^5 T_{64} + \beta_4^5 T_{65} + \beta_5^5 T_{66}$	$\beta_0^6 T_{61} + \beta_1^6 T_{62} + \beta_2^6 T_{63} + \beta_3^6 T_{64} + \beta_4^6 T_{65} + \beta_5^6 T_{66}$	$\beta_0^6 T_{61} + \beta_1^7 T_{62} + \beta_2^7 T_{63} + \beta_3^7 T_{64} + \beta_4^7 T_{65} + \beta_5^7 T_{66}$
O7 = $\beta_0^7 + \beta_1 T_{71} + \beta_2 T_{72} + \beta_3 T_{73} + \beta_4 T_{74} + \beta_5 T_{75} + \beta_6 T_{76}$	$\beta_0^7 T_{71} + \beta_1^2 T_{72} + \beta_2^2 T_{73} + \beta_3^2 T_{74} + \beta_4^2 T_{75} + \beta_5^2 T_{76}$	$\beta_0^7 T_{71} + \beta_1^3 T_{72} + \beta_2^3 T_{73} + \beta_3^3 T_{74} + \beta_4^3 T_{75} + \beta_5^3 T_{76}$	$\beta_0^7 T_{71} + \beta_1^4 T_{72} + \beta_2^4 T_{73} + \beta_3^4 T_{74} + \beta_4^4 T_{75} + \beta_5^4 T_{76}$	$\beta_0^7 T_{71} + \beta_1^5 T_{72} + \beta_2^5 T_{73} + \beta_3^5 T_{74} + \beta_4^5 T_{75} + \beta_5^5 T_{76}$	$\beta_0^7 T_{71} + \beta_1^6 T_{72} + \beta_2^6 T_{73} + \beta_3^6 T_{74} + \beta_4^6 T_{75} + \beta_5^6 T_{76}$	$\beta_0^7 T_{71} + \beta_1^7 T_{72} + \beta_2^7 T_{73} + \beta_3^7 T_{74} + \beta_4^7 T_{75} + \beta_5^7 T_{76}$

Key O1 = upper number ( $\beta_0^1 T_{ij}$ ),  $\beta$  = estimated parameter,  $\beta_0^j$  = Estimated mean, number  $j$  = unique number,  $i$  = hypothesis number,  $T$  = behavioral feature of SPCA,  $t$  = strengthened condition.

Appendix 4. A relationship matrix between BICA's behavioral theories and the outcomes of six principal variables.

Dependent Variable	Independent Variables					
	$B_{11}^2 P_1 + B_{12}^2 P_2 + B_{13}^2 P_3 + B_{14}^2 P_4 + B_{15}^2 P_5 + B_{16}^2 P_6 + B_{17}^2 P_7 + B_{18}^2 P_8 + \epsilon_1^2$	$B_{21}^2 P_1 + B_{22}^2 P_2 + B_{23}^2 P_3 + B_{24}^2 P_4 + B_{25}^2 P_5 + B_{26}^2 P_6 + B_{27}^2 P_7 + B_{28}^2 P_8 + \epsilon_2^2$	$B_{31}^2 P_1 + B_{32}^2 P_2 + B_{33}^2 P_3 + B_{34}^2 P_4 + B_{35}^2 P_5 + B_{36}^2 P_6 + B_{37}^2 P_7 + B_{38}^2 P_8 + \epsilon_3^2$	$B_{41}^2 P_1 + B_{42}^2 P_2 + B_{43}^2 P_3 + B_{44}^2 P_4 + B_{45}^2 P_5 + B_{46}^2 P_6 + B_{47}^2 P_7 + B_{48}^2 P_8 + \epsilon_4^2$	$B_{51}^2 P_1 + B_{52}^2 P_2 + B_{53}^2 P_3 + B_{54}^2 P_4 + B_{55}^2 P_5 + B_{56}^2 P_6 + B_{57}^2 P_7 + B_{58}^2 P_8 + \epsilon_5^2$	$B_{61}^2 P_1 + B_{62}^2 P_2 + B_{63}^2 P_3 + B_{64}^2 P_4 + B_{65}^2 P_5 + B_{66}^2 P_6 + B_{67}^2 P_7 + B_{68}^2 P_8 + \epsilon_6^2$
$HQ1 = B_{11}^2 + B_{12}^2 P_1 + B_{13}^2 P_2 + B_{14}^2 P_3 + B_{15}^2 P_4 + B_{16}^2 P_5 + B_{17}^2 P_6 + B_{18}^2 P_7 + B_{19}^2 P_8 + \epsilon_1^2$						
$HQ2 = B_{21}^2 + B_{22}^2 P_1 + B_{23}^2 P_2 + B_{24}^2 P_3 + B_{25}^2 P_4 + B_{26}^2 P_5 + B_{27}^2 P_6 + B_{28}^2 P_7 + B_{29}^2 P_8 + \epsilon_2^2$						
$HQ3 = B_{31}^2 + B_{32}^2 P_1 + B_{33}^2 P_2 + B_{34}^2 P_3 + B_{35}^2 P_4 + B_{36}^2 P_5 + B_{37}^2 P_6 + B_{38}^2 P_7 + B_{39}^2 P_8 + \epsilon_3^2$						
$HQ4 = B_{41}^2 + B_{42}^2 P_1 + B_{43}^2 P_2 + B_{44}^2 P_3 + B_{45}^2 P_4 + B_{46}^2 P_5 + B_{47}^2 P_6 + B_{48}^2 P_7 + B_{49}^2 P_8 + \epsilon_4^2$						
$HQ5 = B_{51}^2 + B_{52}^2 P_1 + B_{53}^2 P_2 + B_{54}^2 P_3 + B_{55}^2 P_4 + B_{56}^2 P_5 + B_{57}^2 P_6 + B_{58}^2 P_7 + B_{59}^2 P_8 + \epsilon_5^2$						

Key: HQ = outcome measure;  $B_{ij}^2$  =  $\beta$ -coefficient parameter;  $P_{ij}$  = behavioral theory number;  $\epsilon_i^2$  = error term;  $i =$  hypothesis number;  $j =$  behavioral theory of BICA;  $\beta =$  unstandardized regression coefficient.

**Hypotheses 1: A relationship exists between the institutional factors of the firm's assets and ESGA's scores**

Dependent Variable	Independent Variables							
	$\beta_0^1$	$\beta_1^1 A_{11}$	$\beta_2^1 A_{12}$	$\beta_3^1 A_{13}$	$\beta_4^1 A_{14}$	$\beta_5^1 A_{15}$	$\beta_6^1 A_{16}$	$\beta_7^1 A_{17}$
D1 = $R_{it}^2 + \beta_1^1 A_{11} + \beta_2^1 A_{12} + \beta_3^1 A_{13} + \beta_4^1 A_{14} + \beta_5^1 A_{15} + \beta_6^1 A_{16} + \beta_7^1 A_{17} + \epsilon_t^1$								
D2 = $R_{it}^2 + \beta_1^2 A_{11} + \beta_2^2 A_{12} + \beta_3^2 A_{13} + \beta_4^2 A_{14} + \beta_5^2 A_{15} + \beta_6^2 A_{16} + \beta_7^2 A_{17} + \epsilon_t^2$								
D3 = $R_{it}^2 + \beta_1^3 A_{11} + \beta_2^3 A_{12} + \beta_3^3 A_{13} + \beta_4^3 A_{14} + \beta_5^3 A_{15} + \beta_6^3 A_{16} + \beta_7^3 A_{17} + \epsilon_t^3$								
D4 = $R_{it}^2 + \beta_1^4 A_{11} + \beta_2^4 A_{12} + \beta_3^4 A_{13} + \beta_4^4 A_{14} + \beta_5^4 A_{15} + \beta_6^4 A_{16} + \beta_7^4 A_{17} + \epsilon_t^4$								
D5 = $R_{it}^2 + \beta_1^5 A_{11} + \beta_2^5 A_{12} + \beta_3^5 A_{13} + \beta_4^5 A_{14} + \beta_5^5 A_{15} + \beta_6^5 A_{16} + \beta_7^5 A_{17} + \epsilon_t^5$								
D6 = $R_{it}^2 + \beta_1^6 A_{11} + \beta_2^6 A_{12} + \beta_3^6 A_{13} + \beta_4^6 A_{14} + \beta_5^6 A_{15} + \beta_6^6 A_{16} + \beta_7^6 A_{17} + \epsilon_t^6$								
D7 = $R_{it}^2 + \beta_1^7 A_{11} + \beta_2^7 A_{12} + \beta_3^7 A_{13} + \beta_4^7 A_{14} + \beta_5^7 A_{15} + \beta_6^7 A_{16} + \beta_7^7 A_{17} + \epsilon_t^7$								
D8 = $R_{it}^2 + \beta_1^8 A_{11} + \beta_2^8 A_{12} + \beta_3^8 A_{13} + \beta_4^8 A_{14} + \beta_5^8 A_{15} + \beta_6^8 A_{16} + \beta_7^8 A_{17} + \epsilon_t^8$								

Key: Q.F = output factor;  $A_{ij}$  = firm's asset;  $\beta_{ij}$  = estimated parameter;  $\epsilon_t^j$  = error term;  $R_{it}^2$  = measured R-squared;  $\epsilon_t^j$  = hypothesis variable;  $A$  = measured institutional aspect of the firm's assets;  $i$  = independent variables.

**Appendix 10: Relationship exists between Ratios of the Bay Islands and the measures of EBCA's principal indicators**

Depend. Variable	Independent Variables					
OC.1 = $\frac{B_1}{B_2} \geq \frac{B_1}{B_2} A_1 + \frac{B_1}{B_2} A_2 + \frac{B_1}{B_2} A_3 + \frac{B_1}{B_2} A_4 + \frac{B_1}{B_2} A_5 + \frac{B_1}{B_2} A_6 + \frac{B_1}{B_2} A_7 + \frac{B_1}{B_2} A_8 + \frac{B_1}{B_2} A_9$						
OC.2 = $\frac{B_1}{B_2} \geq \frac{B_1}{B_2} A_1 + \frac{B_1}{B_2} A_2 + \frac{B_1}{B_2} A_3 + \frac{B_1}{B_2} A_4 + \frac{B_1}{B_2} A_5 + \frac{B_1}{B_2} A_6 + \frac{B_1}{B_2} A_7 + \frac{B_1}{B_2} A_8 + \frac{B_1}{B_2} A_9$						
OC.3 = $\frac{B_1}{B_2} \geq \frac{B_1}{B_2} A_1 + \frac{B_1}{B_2} A_2 + \frac{B_1}{B_2} A_3 + \frac{B_1}{B_2} A_4 + \frac{B_1}{B_2} A_5 + \frac{B_1}{B_2} A_6 + \frac{B_1}{B_2} A_7 + \frac{B_1}{B_2} A_8 + \frac{B_1}{B_2} A_9$						
OC.4 = $\frac{B_1}{B_2} \geq \frac{B_1}{B_2} A_1 + \frac{B_1}{B_2} A_2 + \frac{B_1}{B_2} A_3 + \frac{B_1}{B_2} A_4 + \frac{B_1}{B_2} A_5 + \frac{B_1}{B_2} A_6 + \frac{B_1}{B_2} A_7 + \frac{B_1}{B_2} A_8 + \frac{B_1}{B_2} A_9$						
OC.5 = $\frac{B_1}{B_2} \geq \frac{B_1}{B_2} A_1 + \frac{B_1}{B_2} A_2 + \frac{B_1}{B_2} A_3 + \frac{B_1}{B_2} A_4 + \frac{B_1}{B_2} A_5 + \frac{B_1}{B_2} A_6 + \frac{B_1}{B_2} A_7 + \frac{B_1}{B_2} A_8 + \frac{B_1}{B_2} A_9$						

Note: OC.1 = outcome measure  $B_1/B_2$ ;  $\geq$  = measured parameter;  $A_{1-9}$  = additional ratios measure;  $B_1$  = outcome measure;  $B_2$  = measured conventional aspect of the Bay Islands;  $A$  = principal variables.

## BIOGRAPHICAL SKETCH

Andrew F. Stark was born in Buffalo, New York, on December 16, 1942. He attended "University High," the prestigious high school years at the state University of the United States, presently in Madison, Wisconsin. He attended the University of California-Berkeley, and the London School of Economics and Political Science prior to graduating from the University of Wisconsin-Madison with a B.A. in government and international relations in 1966. Stark by now realized, after financial reserves and academic opportunities for doing so, he deserved to work his dreams in direct relation to the risks and challenges. After three winters in South Africa, one in Europe and three in Aspen and Vail, Colorado, he found the space of the expanding regions of the USA were walkways. Feeling a sense of "local world" experience; new ideas and strong study skills, graduate school seemed destined the "logical" choice. In August, 1970, he moved to Pensacola, Florida (essentially the former place of the plane) without an inheritance or the car but with the passion of Blue jeans Civilization, Lear's *Lucky*. He made the drive to teach systems, from 1970, since when there are taught to integrate, our full-mindlessness diminished, learned a real message and extended human dimensions should be given for most accomplishments. He and Lear now share this from such a uniquely advanced Lycosid Behavior based Course. The first message learned of a lifetime placement in the new future.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy



Clyde F. Bauer, Chair  
Professor of Food and Resource Economics

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Professor of Food and Resource Economics

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